

Dental Lib

Dental Lib

RK

617.66

1

1915

VOL. XVI.

JANUARY, 1894.

No. 1.

ITEMS

OF

INTEREST

Published by
**THE WILMINGTON
DENTAL
MANUFACTURING
COMPANY,**

**A MONTHLY
MAGAZINE
OF
DENTAL ART, SCIENCE
AND LITERATURE.**
T. B. WELGH, M.D.
**EDITOR,
VINELAND, N.J.**

1413 Filbert Street, Philad'a.

Branches : { **NEW YORK,
WASHINGTON,**

**CHICAGO,
WILMINGTON, DEL.**

CONTENTS FOR JANUARY, 1894.

ORIGINAL COMMUNICATIONS.

	PAGE.
Adenoid Growths.....	ANNIE F. REYNOLDS..... 1
Dental Decay.....	L. C. INGERSOLL..... 4
Manual Training.....	DISCUSSION..... 6
Painless Dentistry.....	DISCUSSION..... 8
Dental Boards.....	J. FOSTER FLAGG..... 9
Nodules.....	P. MACAROVICI..... 11
Cocain as a Local Anesthetic.....	DISCUSSION..... 13

CURRENT THOUGHTS.

Trichloracetic Acid and Pyrozone.....	DISCUSSION..... 15
Collar Crowns.....	DISCUSSION..... 18
Neuralgia.....	C. A. BOMINGER..... 20
Reminiscences of Dr. Wm. H. Atkinson.....	G. A. MILLS..... 21
Obtundents.....	A. C. HEWITT..... 26
Phenacetin.....	W. H. WRIGHT..... 28
Chloroform as an Obtundent.....	A. C. HEWITT..... 29
Mouth-lighting.....	W. R. SHERMAN..... 32
The Matrix.....	DR. HUNGERFORD..... 33
Curing a Polypus, a Tumor and Catarrh.....	C. A. BOMINGER..... 34
Alloying Gold.....	N. CLARK..... 35
Preparation After Graduation.....	DISCUSSION..... 36
Filling Roots.....	C. HARPER..... 36

HINTS..... 37

Advance—Master Difficult Work—Croakers—Our Atmosphere—
—Prominent Dentists—We Make Our Own Road—Genius vs. Effort
Professional Status—Improving by Experience—Doing the Most
Difficult—Judging Others—Thoughtless Dentists.

ITEMS..... 40

Capping Pulp—Filling with Cement—Filling Roots—Hydronaphol
—English Dentists—Teething—Office of the Pulp—To Get a
Smooth Plate—Sodium Peroxid.

OUR QUESTION BOX.....DR. E. N. FRANCIS..... 43

Third Molars—Enlarged Gums—A Snapping Jaw—Bleaching Teeth
—Repairing Plates—Dark Joints—Cavities Below the Gum—Crum-
bling Gold Fillings—Broken Drill in Root—Rocking Plates.

EDITORIAL..... 47

The New Year—Immediately—Habit—Secret of Success—Implanta-
tion—To Contributors—Move On.

NOTES..... 56

A New Porcelain—Fads—Miracles in Science—The Jaws and the
Backbone—The Ideal Dentist—Mrs. Walker's Loss.

FOR OUR PATIENTS..... 58

Toothache, a Poem—Seeing a Ghost—Patients and Patience—
Pyrozone.

The terms for ITEMS OF INTEREST are \$1.00 per year, in advance, in the
U. S., Canada and Mexico, and \$1.50 to all other countries. Single numbers,
15 cents. Each volume begins with January of each year. Subscriptions
will be received at any time, to date from January or July. Advertising
rates will be made known on application. Money may be sent in registered
letter, by postal money order, express money order, or bank draft.

Address all business communications to THE WILMINGTON DENTAL
MFG Co., 1413 Filbert St., Philadelphia, Pa., U. S. A.

Articles for publication, etc., to T. B. WELCH, M.D., Vineland, N. J.

ITEMS OF INTEREST.

VOL. XVI.

JANUARY, 1894.

No. 1.

ORIGINAL COMMUNICATIONS.

ADENOID GROWTHS AND OTHER DISEASES INCIDENT TO PRIMARY DENTITION.

*Dr. Annie F. Reynolds, Boston.**

Difficult dentition, as held by the elder practitioners and the laity, is not the cause of adenoid growths. It is a rachitical tendency. This is the predisposing cause of infantile convulsions, though an inflamed and tender gum may precipitate the paroxysm.

The time of dentition is a period of great functional activity; for besides the eruption of the teeth, the follicular apparatus of the intestines is undergoing active development to prepare the system for a radical change of diet. As a consequence, gastro-intestinal disorders and nervous symptoms are frequent. The presence of undigested and indigestible food in the stomach and intestines is a very fertile cause for convulsions. Overfeeding with proper food becomes an exciting cause, especially during hot weather. Cutaneous eruptions are common, and may appear contemporaneously with the cutting of a tooth.

The most important condition likely to appear at this period, and the one which to the dentist is of especial interest, is that of abnormal growths in the naso-pharyngeal cavity. That the influence of nasal obstruction is the cause not only of morbid conditions of the whole respiratory tract and middle ear, but also of pathological changes in other and remote organs of the body, is seen in every day facts and experience. The affection appears as the most formidable enemy of childhood, and one very important to detect and eradicate.

Adenoid growths are comblike forms which attach to the posterior wall of the nasal pharynx. They vary in size from an almond kernel to a grain of wheat, generally round. They are reddish, of fleshy consistence, and very vascular. After removal they lose their color, and appear as hard, gray, seed-like bodies. The mucous membrane seems to be free at the base of each mass, and from its pedicle.

*In Columbian Dental Congress. Reported by Mrs. J. M. Walker.

Adenoid growths may affect the respiration, secretion, speech, hearing, or general condition. The general state of the patient is affected in many ways. The imperfect and unnatural breathing creates anemia, which may lead to lack of development of the bones of the face, deformities of the upper jaw, irregularities of the teeth, misshapen chest-walls, deafness, and defective speech. In mouth-breathing of long standing the upper dental arch ordinarily is contracted and the roof of the mouth elevated. In a child of two years, the average age when the trouble begins,—though the growth may be found in an infant of a few days,—there may be little else than difficulty of breathing, especially at night. An ordinary “cold” may have been the initial cause; the child soon shows a tendency to repeated attacks of cold in the head, which increase in frequency and duration, accompanied by considerable nasal discharge, which may be entirely absent when the child is free from acute attacks. Deafness, in the majority of cases, is soon added to the list of discomforts, and by the time the child has reached the age of six, eight, or ten years, the characteristics of a typical example of adenoid vegetation are as follows: The child is a mouth-breather, its facial expression is dull and stupid, often idiotic. The open or half-closed mouth is one of the most constant symptoms. Nasal breathing is interfered with during the day, and at night the child never sleeps soundly; it assumes unnatural positions in bed, the slightest noise will awaken it, and during the day it is languid and irritable. The majority of such children are deaf, and the voice stuffy and thick. Again, nervous symptoms are sometimes associated with this disease, and abnormal sensations in the head and pressure in the upper and back part of the cranial cavity.

Once established, some of these results remain through life; others may be removed or corrected by clearing the air-passage; all of which could have been prevented by an early removal of the growth, whereby natural and free breathing would be established through the nostrils.

The time to operate for the removal of these growths is from the age of a few weeks to sixteen years, the earlier the better for the patient; the operation is not difficult, and, properly performed, is not attended by danger to the child. The growths do not recur, and after their removal the breathing at once becomes quiet and regular, the mouth remains closed, the lungs expand with the increased supply of air, and the whole physique immediately responds favorably. The child, hitherto called dull and stupid, now makes rapid progress, and his comrades soon cease making a laughing-stock of him. As dentists, we have ample

opportunities to diagnose this disease, which, so simple in itself, is malignant in results, and we should realize our responsibilities, since by our neglect to cause the removal of these growths there is a risk of permanent damage to important functions, which may embitter the subsequent lives of these little ones, "no one of whom should perish."

REMARKS.

Dr. Thos. Fillebrown: My observation of these growths has not been great, but I am satisfied many of the troubles we see in children who exhibit the symptoms described, and who are traveling around the streets with their mouth open, are caused by adenoids, and makes many thumb-suckers. It is the result of some growth of the pharynx.

Dr. E. S. Talbot: I have made a study of adenoid growths and diseases of the nose, etc., in relation to the development of the vault and dental arch, and I shall have to differ with the essayist in regard to the causes of the high vault, as she calls it, contracted arch, and the results of mouth-breathing. My investigations have shown that the deformed nose, including deflected septa, arrest of development of the mucous membrane, of the turbinated bones, and of the face and jaws, are all from one cause. A child born of neurotic parents is either a neurotic or a degenerate, and many of the people walking the streets of Chicago to-day must be classed under one of these two heads. A person is born with a neurotic condition, and what is the result? There is an arrest of development, not of the nose, the mouth, or the jaws, but of all the tissues together. A person who has adenoid growths has a high vault, as we understand it, and a person who has a high vault has adenoid growths, contracted jaws, arrest of development of the face, and, as a result of the arrest of development of the face and upper jaw, a deformed dental arch. The arrest of development stops at the sixth or seventh year, and that is the reason why we have adenoid growths and hypertrophy of the mucous membrane at that time, and the deformity of the dental arch is the result of this arrest of development. We are told that at that time the brain has gotten its growth. There are three periods: First, from birth to the sixth or seventh year (I say the sixth); second, the period from the sixth year to puberty,—sixteenth or seventeenth; third, the growth from sixteen on. Now the bulk of the brain ceases to develop at the sixth year,—some earlier, some later. I do not know, nor does any one, why the brain ceases to develop at that time, but we do know, and it must now be settled as a fact, that these conditions are noticed among neurotics and degenerates. The specialist in diseases of the nose will tell you

that very many of his patients have these conditions: deflected septa and expressive development of the turbinated bones. I am very positive of the points I have given you in a general way.

Dr. Reynolds: I am very glad to hear the points Dr. Talbot has given us. I did not intend to state in my paper, if I did state it, that the adenoid growths directly cause these conditions. It is simply by the retardation of the development of the whole system through the body being starved for want of air that these conditions were produced.

PREDISPOSING CAUSES OF DENTAL DECAY.

L. C. Ingersoll, A.M., D.D.S., Keokuk, Iowa.

Every tissue of the body has come to be what it is through various modifications of its typical nature, and has received an impress peculiarly its own, derived from a great variety of sources.

Amidst all modifications of typical forms and peculiarities of structure and function, we desire to learn to what extent pre-existing conditions are responsible for the exciting of decay.

Great steps forward in this direction has been taken in the demonstration of the fact that microorganisms are a potent factor in breaking down the hard tooth structures, but their work has been overestimated through failure to properly estimate the conditions that restrain their operation.

The chemical theory of the decomposition of the mineral portions of teeth must be accepted from first to last of the process of decay, the only change apparent being in the source of acid supply; in the one case it is derived from decomposition of organic matter resting on the surface of the teeth, and in the other the acid is elaborated by bacteria. But why should it be thought necessary to abandon a theory of decay by vegetable and mineral acids chemically produced, when accepting the theory of decay by acids produced by organic germs? It is chemical decomposition in either case, with the additional destructive work of the bacteria gaining their food-supply by devouring a portion of the organic matters composing, in part, the substance of the teeth.

From what we now know of the agencies that destroy human teeth, is it certain that their presence is a sure prophecy of tooth destruction? Are there any pre-existing conditions and tendencies that restrain active causes? Are these favoring or restraining influences inherent in the nature of tooth-structure, or are they accidental or artificial?

Disease is from without; antagonism to disease is from within, and the strength of the antagonism depends on the nature and functions of the tissue or organ. The fact that organic substances do not exhibit the same antagonizing resistance in the presence of destructive influence from without is evidence of a difference of elementary constituents. While the greatest of the difference is created by vitality, which resists chemical decomposition, there is, wholly independent of life, a great difference in the material structure which invites decay. Because of this difference of material composition, one substance decays, while in the same condition and subject to the same influence another does not decay.

Such facts lead us to conclude that the etiology of dental decay is not alone in external influences, but also in the inherent nature of tooth-substance.

When the favoring and restraining conditions of dental decay are compared, it will be found that the latter far outnumber the former, and are far more potent in their influence. We find individuals in whose mouth the conditions favoring decay—the so-called predisposing causes—are so overmatched by resisting and restraining conditions, that decay of the teeth is prevented. This is in harmony with the philosophy of life and the demand of physiological functions. This is nature's self defense against destruction, a sure cure for dental decay. Antisepticism is not a cure; prophylaxis is.

Here there meets us the grandest theme ever presented in dental literature, the prevention of dental decay. Not that prevention which arrests decay when its work of destruction is half done; but that prevention which does not allow the work of decay to begin; that prevention which establishes by hygienic law a barrier in the very nature of tooth-substance that will effectually resist all external influences; that prevention which reaches back to embryonic life, and stamps with longevity the protoplasmic germ.

We need a better understanding of that dental hygiene that guards the very portals of life and nutrition, and forbids the entrance into the tissues of the teeth of every element of weakness and decay. Then we may expect that teeth will bear on their faces the monumental records of a comfortable and happy old age.

ITEMS OF INTEREST commences 1894 with the largest paid-up subscription list of any dental magazine in the world. Ninety-nine out of every hundred dentists take it—we're looking for the hundredth man.

MANUAL TRAINING.

Dr. Rickoff, of New York City: Manual training brings the muscles into subjection to the dictates of the mind as a mode of expression. It reacts on the mind, requiring, as all modes of exact expression do, a careful exercise of judgment, reason, and imagination in the elaboration of details. Facility of execution of the hand within its province should be cultivated, just as a readiness and an exactness of expression of the tongue or pen should be cultivated with the correlative faculties of the mind. The hands of some men respond more readily to the dictates of the will than do the hands of others. It would almost seem as if the hands of some men did not wait for impulse from the council chamber of the brain through motor nerves, but that they are self-acting and self-determining. It is this almost immediate communication between the brain and the hand that we would cultivate by manual training, not for the sake of manual skill alone, but more that the mind, through the exercise enacted thereby, may be trained in readiness and precision of thought. This, I say, because it seems necessary to denounce the idea that the advocates of manual training aim to supersede or in any wise belittle the study of language, science, and art. As an aid to all these it has its chief value. This exercise of the brain in expression of material forms, through the agency of the eye and hand, in and of itself, exercises and trains the mind. It is not safe to defer this training till special pursuits or professions require the exercise of manual skill, for experience in every department of education goes to prove that any faculty neglected in early life is apt to be lost.

Dr. Peterson, of New York City: Manual and industrial training to me are mere phases of what I would call muscular training. When we study the evolution of mind in a child, we learn that at first the child perceives with its sight and hearing; that it perceives color and light and sound; and it is only later that, by the movement of the eyes from side to side and up and down, it receives some ideas of the position of objects in space, of their shape, size, and general conformation. In handling these objects later it learns through the muscular sense—a reflex expression of it—the texture, conformation and weight of objects. It is through these two avenues the child gains its entire knowledge of its environment; and not only of the environment, but of its own body, and the position and use of its members. It is by the training and education of the muscular sense that we educate the mind, because there is a connection between muscular movement and an

idea, so that we can speak of muscularity of thought or psychomotor ideas.

Dr. Kingsley, of New York City: When I was about seven years of age, my father furnished me with a pocket-knife. My mother thought it was very injudicious, saying I would cut my fingers. "Never mind," said my father, "if he does; he will learn not to cut them." When I was eight years of age, I was whittling out little water-wheels and running them in a little stream that passed by our house. About that time I read in some book, published in Boston, something about how a clock was made; it gave the principles, and I got some little round wooden wheels, on which ribbons came, and cut the notches out and made a clock with this same knife that my mother was afraid I would cut my fingers with. I did cut my fingers, but I was learning to use my fingers; and I have kept at it; I have not left it off to this day. I believe now that any dentist who ignores the laboratory as not being high-toned enough for him, is ignoring the place of all others that would give him the best opportunity to keep in good practice, and to acquire the highest point of skill in any branch of dentistry that he may be following. A friend of mine wanted to make a dentist of his son, and asked me to take him as a private student. I said I would when the time came, provided he was trained for it. I said, in addition to his foundation-work in the academy, let him undertake something that will be in the line of manual training simultaneously with his other studies; let him play the violin, jew's-harp, or the piano, take lessons in drawing, or a trade, something by which he will acquire skill with his fingers. That was carried out for two or three years, till it was proven that the boy had no interest in the use of his fingers; it was work, it was drudgery; so the proposition to become a dentist was dropped. I do not think he could have been trained to become a really skilled dentist. He would have made as good a dentist as the majority of dentists who have no special finger-training, who go to college and spend their time smoking in the laboratory and seeing others operate, and then hang out their signs. I tell all young men who come to me for advice, if they have not already acquired some manipulative ability with their fingers—I do not care whether it is modeling or what it is, only so they have finger skill—that if they have not acquired that skill, and it is too late to acquire it, they might better study law; that is the place for them. I endorse fully the idea of manual training as being first, second, third, last, and all the time in the preparation of a young man for dentistry; and manual training if begun at the proper age will lay a broad foundation for becoming a good dentist.

PAINLESS DENTISTRY.

For the painless removal of pulp tissue Dr. Rose rubs small portions of cocain in a mortar or on a glass with a single drop of carbolic acid, touching the exposed nerve with what can be carried of this solution on a nerve broach.

Dr. Hewitt accomplishes the same result with a paste of cocain and glycerin. Use the glycerin in preference to carbolic acid; you can take that paste, apply it to the bare nerve if you can get to it, then follow it clear down to the apex, and you can remove it without pain.

Dr. Morrison, of St. Louis, believes that the use of morphin and cocain have been abused in the painless extraction of teeth. It is a sacrilege to extract a tooth or a root that can be used in crown or bridge-work.

Dr. Pruyn advocates the open discussion of all the drugs in the materia medica that can be used in the intelligent practice of dentistry. He said:

Because some abuse them is that anything to me? I get sick and tired of a discussion where it is assumed that we are all ignorant tooth-pullers because some in the profession abuse it, when we use a drug and use it intelligently. Let us understand the uses of these drugs, and by experiment find what the abuses are and bring them out openly.

Experiments should be practiced on animals that the action might be better understood.

Dr. Hewitt's Compound Cocain Pigment:

Atropin.....	grs. $\frac{1}{4}$
Stropanthin.....	grs. $\frac{1}{8}$
Cocain hydrochlor.....	grs. cxx.
Hydronapthol.....	grs. x.
Oleum carophylli.....	3 ij.
Chloroform.....	3 ij.
Oleum cassia.....	3 ij.
Glycerin.....	3 j.

M. Sig.—Use locally.

This will be found a good local application, even in putting on the gilling twine, or in working the rubber up under the gums.

I have used this pigment for a long time on all sorts of patients, on patients with heart-disease, with kidney-trouble, with one side paralyzed, and brain-trouble, and every conceivable disease that has come into my office, and so far as I know, without the slightest toxic effect. Why? Because enough of it cannot be absorbed in the way I use it to enter into the circulation; if it were all put into the stomach at once it would not hurt a baby.

Dr. Bigelow, Chicago, Ill.: I have used a saturated solution of cocain on the gingival margin in the application of the rubber-dam in very difficult cavities, where I am sure patients would have been entirely unable to stand the pain of forcing the floss beyond the margin enough to insert a gold filling properly if it had not been for the cocain. I simply take pulverized cocain on my cement-tablet, and with a very small pledget of cotton dampened with water, sometimes with alcohol, dip it in the pulverized cocain and apply it to the gingival margin.

Dr. Geo. A. Mills, of New York City: I never have used Dr. Hewitt's preparation, and I have used cocain preparations with other drugs in combination, day in and day out, for sensitive dentine and for the soft tissues in the treatment of disease, and in my experience so far there is not one single instance of adverse effect from it.

DENTAL BOARDS.

Prof. J. Foster Flagg.

There is an incentive to pass and graduate men who are utterly unfit. They come to us, they work with us, and they get around us in some way—I don't know how—and the result is that some young men who are utterly incompetent go out from our schools. Do we know it? They work hard; they are present at every lecture; they are in the seats with their eyes wide open and their mouths wide open, drinking it all in, poor as it is; we see them every day, and we get to know those boys, and we hope that when they come up for examination they will pass well. What do they do? They are required to make a set of artificial teeth, and they take an impression, which is a wretchedly poor impression; so they say to some fellow-student who is able to take a good impression, "Here, I am going down-stairs a minute; you just take this impression for me, and I will be right back." So the good man takes the impression. Then the poor man swages up a plate, and it is the poorest kind of work, and he gets another man to swage up the plate for him. He sets it in plaster, and where the single teeth are to go he sets them, but where a few teeth are to be ground up together he finds he can't grind them up, so he gets another man to grind up the gum teeth for him. And that piece of work is finally put in by this fellow as his work. He could not do it to save his soul; but how is the teacher to know that? Do you suppose we are going to watch every student at his work? Then, if a student has to prepare a cavity, and don't know how, he gets

somebody to do it for him. He can't put the gold in, so he gets some one else to do that; and perhaps he can't finish the filling, and he gets somebody else to finish it up for him. Finally, he brings it to my good friend here, or to me, and he is asked; "Did you do this work?" and he says, "Yes, sir," and he lays his hand on his heart. Then he comes up for examination, and we ask him questions. I would like to read to you, gentlemen, a list of some of the questions that I have asked the students who pass before me. If it don't take in the whole range, from A to Z, then I don't know anything about dentistry—that is, in my branch. I have no idea what they do in the other branches, but in my little branch of dentistry I examine students thoroughly, and I ask them questions that I doubt very much if many of my brother hornets could answer. We have forgotten the things we used to know in school, but we keep up with the procession pretty well in practice, and run dentistry decently well in our office. And so it goes on. This man comes up for examination, and his finger-nails are written all over with the letters that he understands, and he gets beside some fellow that he knows is well posted, and he nudges him when a question is asked, and so, finally, he gets 41. He wants 42. That fellow, with all his cheating and defrauding, gets 41. And then I say, "Well, gentlemen, I voted 5 for that fellow; I think I can go one more. I will give him 6." Would not any one of you do that? I ask you, are you such hard-hearted cusses that you would not do that—particularly for your sons? Of course you will do it. You say, "He has worked hard, he is a reasonably good fellow, a thundering sight better than I was when I started in practice. I did not know one-tenth part as much when I started, so I can afford to give him one more." Thus he gets 42, and he passes. And he goes out and he says, "I guess I got about 59 out of them 60 votes."

Now, when my friend Dr. Osmun said, in speaking of the gentleman who failed to pass the Examining Board, that he came from a reputable college, where they taught those things *in extenso*, I at once assumed that it must be the Philadelphia College, because I would like to know where they teach things any more *in extenso* than they are taught in that college. If the students who go out from that college knew everything that is taught in it, they might rattle most of you old men.

There should be no controversy between our Examining Boards and the schools. If the students cheat us into believing they are fit to pass, they cheat themselves a hundred times more. What is the incentive? It is simply that, as a result of possessing our diploma, they are enabled in many States to practice. If they could not

practice under that diploma—if it only stated that these gentlemen have been sufficiently prepared to come before your Examining Boards and take your examination, that we have examined them and think they are capable of passing your examination easily—if these men, having passed our examination, could not practice till they had passed your Examining Boards, don't you suppose they would embrace the opportunities to learn what we give them? Don't you suppose they would learn how to prepare cavities, and take impressions, and swage plates, and grind teeth? Of course they would, because their right to practice would depend on their ability to demonstrate their knowledge of these things before you.

CHRONIC INFLAMMATION OF THE PULP AND NODULES.*

P. Macarovici, M.D., Jassy, Roumania.

Pulpitis chronica idiopathica is a secondary formation of dentine—a dentine neoplasm. This pathological process arises in three ways:

1st. By the proliferation of one or several cells of dentine-tissue, forming a nodular growth which exerts pressure on the nerves of the pulp.

2d. By a sort of obliteration of the pulp-chamber, whence the pulp beginning at the periphery is transmitted into secondary dentine; the change commences at the portion adjacent to the crown, which at the same time becomes continuous with the dentine and extends downward to the root portion of the pulp. This new formation at times becomes so extensive that the entire pulp becomes transformed into softer dentine than the normal, and entirely obliterates the chamber. Such creations are usually to be found in teeth affected with a low chronic inflammation.

3d. By a new formation, having its origin in the pulp itself, and not connected with the walls of the chambers, but free either in the center or at the periphery of the pulp. This occurs rarely in teeth whose cusps are entirely unaffected.

Bertin was the first to observe that these new formations are of two kinds, an *adherent* and a *free* species.

The dentine-fibers are normally, while secluded from the atmosphere, nothing else than lymph derived from the pulp, traversing the dentine canals, and penetrating to the enamel. They serve for the nutrition of the dentine and enamel, and partially also for that of the cement, where they may be regarded as auxiliaries

*In the Columbian Congress. Reported by Mrs. J. M. Walker.

of the alveolar periosteum. This fluid has the property of becoming solid on contact with the air, being fluid only while in transit from the pulp to the enamel through the canals of the dentine. At the instant of contact with the atmosphere the fibers solidify at their superficial extremity, forming an elastic membrane provided with minute pores, which allows of the transudation of a small portion of the still fluid lymph, and which, in fracture of the tooth, serves for the formation of the callus. If the solidification proceeds till finally the pores are obliterated, such solidification involves the entire extent of the fibers from their peripheral termination to their origin in the pulp.

It is my opinion, and it is shared by several authors, that the inner wall of dentine looking toward the pulp and surrounding it continues to grow after development of teeth is complete, and that hence hyperemia brought on by intense emotion, violent movements and other causes, may, from the mineral substances contained in the blood, bring about a hypertrophy of the dentine which causes a narrowing of the canals of the dentine at their mouths in the walls of the pulp chamber, and thus interferes with the entrance and circulation of this lymph. The mineral substances are thus retained in the pulp, where they undergo evolution into dentine, cement and enamel, which are intermingled, or else unite in groups of one or several homologous cells. This process has been verified by the observations of several authors, who state they have found enamel, dentine and cement in the new formation.

Notwithstanding the fact that lymphatic vessels have not yet been shown to exist in the pulp, it is certain that lymph must be present in the pulp.

This theory of the fluid nature of the fibers is substantiated by the formation of callus after fracture of the teeth. From whence comes this callus if not from the secretion of plastic lymph? And if the fractured portions of the crown contained no fluid in themselves, how could the lymph which is supposed to come from the pulp unite the fragments, which would in this case be toward one another as foreign bodies?

This theory also explains the great sensibility which exists on touching with a pointed probe a point in the line of junction between the dentine and the enamel, whereas the sensibility is much less at any point of the dentine itself. The hyperemia, which may be the cause of an inflammation of the pulp, determines the place of the dentine-formation. If, for instance, the inflammation is intense the entire pulp is implicated, and the concretions come to be free in the chambers, and are of different size and form. If the inflammation is less intense, it becomes limited to parts of the pulp, only

the apex or the lateral walls; then the mouths of the canaliculi only are narrowed which correspond to the site of the inflammation, and the newly-formed dentine is deposited in that spot and forms a mass in connection with the fibers as well as with the dentine-canals. This is the origin of secondary dentine. Such secondary dentine is also found at times in caries.

COCAIN FOR LOCAL ANESTHESIA.

Dr. Cravens says: Cocain for local anesthesia is beneficial for other purposes in dentistry than simply the extraction of teeth. I have had some experience in local anesthesia by the use of cocain in the operation of scraping the roots or operating in the pus-pockets of pyorrhea alveolaris. I apprehend the operation without anesthesia is about as painful and certainly much more protracted than in extracting teeth. I use a saturated solution of cocain and chloroform. The cocain is first rubbed very fine in a mortar, and then dissolved to saturation in a half ounce of chloroform. In pyorrhea alveolaris, I inject with a syringe deeply into the pockets the solution of cocain, previously washing the pocket with hot water. Use water just as hot as it can be borne and not burn. I use the ordinary little syringe that holds, I suppose, half an ounce, and I discharge one, two, three, perhaps four charges from that syringe into the pocket before I apply the cocain at all, then inject a single drop of cocain. My idea is not to overflow the pus-pocket and have the cocain float about the mouth.

The first application of cocain is guarded; that is, I keep the saliva away and protect it for perhaps two or three minutes, then I wash again and apply the cocain. I make three applications of cocain in succession, sometimes four. After the third application, in most cases, and certainly always after the fourth, I can go to the end of the root,—the apex, if the pocket goes that far,—and can scrape the root, as I have done in some cases till my conscience revolted, because I thought I was hurting the patient, and I have been told there was no pain.

It requires about fifteen minutes to make the three applications; one will not do, two will not do, but three nearly always will do, and four will do it in every case that I have encountered.

Dr. Hewitt relies on a local application of cocain in pyorrhea. He dips the point of a moistened instrument in pulverized cocain, and carries it to its place. The effect is almost instantaneous. I carry cocain on the point of instruments up into the pockets,

and by moving the instrument around on the gums, with very excellent effect.

Dr. V. Paredas, Bogota, Colombia, finds that a local application of cocain, made by wrapping or binding around the tooth a bandage bathed in a 10 per cent solution of cocain with antipyrin, and allowed to remain ten or fifteen minutes, will produce a good result.

Dr. Aguilar, San Jose, uses cocain in preventing nausea while taking impressions; rubbing over the palate a solution, and so anesthetizing it partially, taking an impression without nausea or producing vomiting.

To obviate the unpleasant taste of the cocain, he mixes with the solution a very small quantity of saccharin, in the proportion of fifty centigrams of water to three of pure cocain,—a very small amount on the point of a penknife, of saccharin, and mixed with cocain, obliterates the bitter taste of cocain almost altogether.

Dr. Fletcher, St. Louis, advises that the tissues be tested with a sharp instrument, and the extraction made as soon as possible after the injection; the more quickly you can act the better, for so soon as the tooth is extracted, the cocain being in all the tissues surrounding, the bleeding that ensues eliminates the cocain with the effusion of the blood, so that you can get very little into the circulation.

DENTAL EDUCATIONAL LAWS.—Dr. D. D. Atkinson says that when a person shall have obtained a license from a State Board he should then be admitted to practice in any State without further examination.

Dr. Rosser thinks some way must be found to which men of recognized ability can be allowed to practice anywhere without the necessity of a State Examining Board.

At the next meeting of the National Board this matter will be discussed, and some measure adopted for interstate recognition.

Would not the following be a satisfactory standard? Any dentist who is a member in good standing in the State Dental Society in which he resides shall be entitled to practice in any other State after receiving a certificate from the State Dental Society in which he resides.

CURRENT THOUGHTS.

TRICHLORACETIC ACID AND PYROZONE IN PYORRHEA.

In the Second District Society of New York.

Dr. F. T. Van Woert: Some time ago my attention was called to trichloroacetic acid by a short article in one of the journals, that came from the pen of our esteemed colleague, Dr. Peirce, of Philadelphia; and later I began using it with pyrozone, the combination of which has given me results in the treatment of pyorrhea so remarkable that, like the old-time exhorter, I feel like shouting "Glory!" There has been nothing presented to the profession during my practice that promises so much. A patient, a lady about thirty-five years of age, has been in my hands for treatment the last year and a half, and I could not see that I had made the least advance toward success. The disease was apparent throughout the whole mouth; I had about decided to remove the lower anterior teeth, and as a last effort to save them I began treating with the trichloroacetic acid and pyrozone. At the end of ten days, during which practically only two treatments had been given, I had the satisfaction of finding the parts in a healthy condition,—not the least sign of pus, and apparently a perfect union between the soft tissues and the tooth. It seems to me almost marvelous. What the ultimate outcome will be I can only guess, as the whole thing is so entirely new. Of course, the teeth must first be thoroughly cleaned.

Dr. Edward C. Kirk: More than a year ago my attention was called to the use of trichloroacetic acid through a note in one of the medical journals; it was there recommended for the removal of vascular growths on the mucous membrane. I sent for an ounce, and made some experiments with it in the treatment of the vascular tumors of the pulp and hypertrophy of the gum-festoon so frequently seen in connection with caries of the sixth-year molar in children, in which the cavity is filled with the growth and the margin greatly inflamed, presenting a very unhealthy appearance. I used for the removal of these growths a solution of ninety per cent, by an application of cotton placed around a piece of orange-wood. With this I could wipe out the growth, a layer at a time, and there was no hemorrhage or pain during the removal. My next experiment with it was in pyorrhea, and I am glad to add my testimony to Dr. Van Woert's as to its exceedingly remarkable action. I have tried nearly everything that has been recommended

for the treatment of pyorrhea, and I have had perhaps the average success. A lady came to me who had been treated for a chronic condition of pyorrhea for many years. Her lower incisors were very loose. They were all dancing up and down in pus, and it looked as though there was no alternative but extraction. I thought, "Here is a case I can experiment with." If I shall not be able to save the teeth the patient will be no worse off than before treatment. So I proceeded to remove the deposits, using applications of trichloracetic acid to soften the concretions on the roots. I went vigorously to work with the idea of thoroughly removing every particle of deposit. The second visit, which occurred about a week later, showed that the discharge of pus from four of the teeth had entirely ceased; two showed a little pus-discharge. The gum-margin of these two, instead of adhering closely to the teeth with a sharp, thin margin, was thickened and inverted, looking as though the teeth were stuck in a batch of soft dough. I made the second and third treatment, using the trichloracetic acid and pyrozone, as before, in connection with the use of scalars. About the third visit, I found that the gum around three of the lower incisors had completely changed in appearance, and, instead of the inverted character which it had formerly presented, it was normal in appearance, showing a fine, sharp line of attachment, and was in a perfectly healthy condition. I then examined further, and found that the other teeth which did not have this close vital attachment of the gum still had some small deposit of tartar. I persevered till I had removed absolutely everything in the shape of a calcareous deposit from the roots, and I have now the six teeth in healthy condition. The remainder of the teeth in the mouth have been without treatment, and are still typical cases of pyorrhea. But I am so much impressed with the results that I am almost ready to go on record for the statement that where we do not cure pyorrhea, it means that we have not removed every particle of deposit from the root. I am inclined to this because of the very closely adhering quality of the tartar, for though I thought I had completely removed it I found still more; but afterward, when I had completely removed it, complete restoration followed. I want, however, to try it further before I make so dogmatic a statement.

Dr. R. Ottolengui: I would like to ask Dr. Kirk whether he thinks a restoration of that kind could be made where the pulp had been removed, or whether he would only expect that to occur where the pulp was alive?

Dr. Kirk: I never think about pyorrhea in that sense. I simply try experiments and note results. I regard pyorrhea as one of the disorders that we have no business to speculate about.

On general principles, I should think the chances against a pulpless tooth; but that is merely a speculation, and I feel, in view of our lack of exact knowledge on the subject, I have no right to make that kind of a guess in relation to any case of pyorrhea.

Dr. Van Woert: In the case which I recited, one of the teeth was dead, and there was no apparent difference in the action of the trichloracetic acid. It acts as an escharotic, and while there is no restoration of tissue, there is adhesion, and the parts look healthy. I united the teeth by bridging, and they are doing nicely.

Dr. Ottolengui: I have a patient who had a pyorrhea pocket around a tooth; the gum had receded. Recently he came in complaining he had been in agony and had a sleepless night. He thought I must destroy the pulp; the whole tooth had become so sensitive he could not put hot or cold water in his mouth without having it ache. I asked him to allow me to experiment with it, and I treated the pocket with pyrozone. He came again in the afternoon and said that he had some relief, and I gave him a second treatment. He was in the next morning, and I gave him acetanlid to take during the night; I treated it again that morning with pyrozone, and the following morning. I saw nothing of him for a week. In the meantime I became a convert to the trichloracetic acid, and determined to try it on him; but when he came in, I found the pocket had closed up, and here within a week and a half it had re-attached itself and the pain was gone. So you see it is possible with these new remedies to get good results.

Dr. Kirk: Since I have gotten the result that I have noted with trichloracetic acid, and since I have found it is possible to get a confirmation of the attachment that is already there,—not necessarily reproduction of lost tissue,—I have reorganized my system of scaling teeth. I thought I had been doing it pretty well, but since I have been using the treatment noted I have been much more careful to assure myself that every particle of tartar is removed. After every part seems smooth, and the root seems clean, I have afterward found it was not so by adopting the method of packing the pocket with cotton for a moment for the purpose of distending it, and then bathing the pocket with trichloracetic acid, which coagulates the surface so that no effusion takes place. You can then momentarily get a good look at the root-surface, when you will see any little particles of tartar which remain. You might build a telegraph line from here to San Francisco, and have it all completed with the exception of one inch, but a message could not be passed over the wire; and in a like manner this disorder cannot be cured till the last granule of tartar is removed, and the root is thoroughly clean. I have used trichloracetic acid as strong as

ninety per cent, simply as an escharotic; but in pyorrhea I have used it only of ten per cent strength. Trichloracetic acid is one of a group of similar acids; there are two others in the group, the monochlor and the dichloracetic acids. I have never seen the other two, but they have similar properties, and the slight modification in their composition, due to the difference in their respective proportions of chlorin, might make some difference in the combination that would be of value in dental therapeutics. *Cosmos.*

COLLAR CROWNS.

Discussion in Kansas Society.

"To what extent and under what conditions is the collar crown a cause of pericemental inflammation?"

Dr. McMillen: I have for ten years been an advocate of setting crowns without bands. In all locations, especially in the anterior portion of the mouth, or the six anterior teeth, where it is possible I set crowns without using bands; back of that it becomes necessary, I think, sometimes to use a band in setting a crown. In the crowns I use for bicuspid, I employ few bands. For the anterior teeth I never use them unless the root of the tooth is so much decayed I have to build it up; then sometimes I use a band. Back of the bicuspid, in the first, second, and third molars, if I crown them, I invariably crown them with gold. Then, of course, we have to use the band, or use the crown by allowing it to encircle the root. In using bands, unless they are fitted very accurately, and more accurately than most are, we will have disturbance in the surrounding parts. My experience is that the fewer bands used the better condition the mouth will be in in the course of two or three years. If we could always extract a tooth after doing what we think is a very neat job, about nine out of ten would find it was a very bad fit, usually a shoulder left and the cement projecting possibly; and if there is a misfit, or a shoulder left, and the crown is driven up under the gum, which it should not be to any extent, you will always have trouble and inflammation following. If it is left in that condition you usually have absorption. We do fit some of the crowns accurately; but many crowns are not fitted as they should be, and where they are driven up more than just under the free margin of the gum you will have inflammation of the periodontal membrane.

In all anterior teeth I do not band them unless the root is so badly gone I can not do it any other way. If the teeth are in a

condition that we can cut them off and get a good solid foundation there is no use of banding.

I saw a gentleman set a crown in St. Louis. He had the root to shape, and he cut it fully a thirty-second of an inch under the gum, made a Richmond crown, banded it and drove it up there. In the first place he punished his patient terribly, and when finished I wouldn't have had it in my mouth at all. The consequence will be the tooth will be lost in less than three years. I have been setting crowns during the past fourteen years. Wherever it is possible, I leave the root long enough to project so as to show a joint all around, and set them without bands, which, I believe, is the proper thing to do.

Dr. Patterson: The question is, To what extent and under what conditions is the collar crown a cause of pericemental inflammation?

In the first place, I should say because the crown did not fit; and in the second place, because it was not nicely beveled down to the cervical edge and was not nicely polished; in the third place, because it was driven on too far; and in the fourth place, because the calcic matter was allowed to accumulate, the same as it is allowed to accumulate around a majority of teeth. That, in my experience, is the cause of much of this inflammation which we see around the gum, and which is the cause of pericemental inflammation. Pericemental inflammation, where crowns are placed on teeth, would be caused almost altogether by their being driven too far down. Every root on which you are to place a collar crown, first fit with pure gold; solder with gold not quite so pure; get the proper measurement, fit it on, burnish it, make the proper contours and proper cutting and shaping. If you take pure gold, of, say, twenty-eight to thirty gage, you can burnish that pure gold and remove all inequalities inside, outside, and proximally, thoroughly. You have an open band then of pure gold going up as far as you want it, and encircling the root. Use twenty-two karat gold to solder or braze it together, and on every part of that band your burnisher will make an exact joint with very little force. Let that be the foundation of your crown, and on that make your crown of twenty or twenty-two karat gold—or coin gold, if you choose—and telescope it down a sixteenth of an inch of the lower edge on the pure gold and solder it there, and then go on with your crown. In that way you get rid of a possibility of a mistake in the fit of the band around the root. It is an admirable method, and at the same time it allows your telescoped crown to contour with any shape you want.

Dr. Hungerford: I do not believe the collar crown ever is the cause of pericemental inflammation, in any instance, fit or no fit.

Dr. Patterson : If the collar crown is driven down so far that it touches the pericementum, I wonder why it shouldn't become a condition under which there is pericemental inflammation, and it often is; I have seen them put them down there myself.

Dr. Hungerford : For the same reason that a cut in the hand or any portion of the flesh is not a permanent wound. It soon heals. And when you drive that collar crown down in the alveolus, the process of kind Nature gradually absorbs it, and that is the end of it. We are not speaking about the gum tissue, understand.

Western Dental Journal.

NEURALGIA.

Dr. C. A. Rominger, Reidsville, N. C.

I do not know of a more frequently used scape-goat than this. I venture the assertion that neuralgia is not a disease *per se*. It is the manifestation of disease—the howling of the dog when the tail is mashed; the crying of the baby when the belly aches.

How foolish it would be to poultice the dog's mouth to cure the mashed tail, or to blister the baby's tongue to cure the belly ache. And yet many times when the immediate cause of a neuralgia is not at once found by physician or dentist, the patient is dismissed with the consoling declaration that she has neuralgia, and thus she is abandoned to the agonies of purgatory without a ray of hope from those so-called lords of science. The most frequent cause of facial neuralgia is an exposed nerve or an alveolar abscess.

But severe facial neuralgias frequently arise from other causes. One of the severest cases of facial neuralgia that ever came under my care was caused by albuminuria. I exhausted every resource I could command, and then called in the assistance of one of the most skilled physicians in the State, and we counseled together and searched diligently through the whole economy, at the same time trying every anodyne that we could summon for temporary relief, without the least success. Finally we tested the urine, and found it just freighted with albumin. A few days of treatment in cleansing the kidneys and stimulating them to healthy action completely cured the neuralgia.

A lady came from Virginia to our town to be treated for sore throat and neuralgia in one side of the face, and while under treatment she came to my office for some work on her teeth. On examining them I found a lower molar on that side dead, and having a large amalgam filling in it. It was not abscessed, but only slightly tender to percussion. I said to her, "Well, now, I'll cure your

sore throat;" and I did. I put that tooth in good healthy condition, and the sore throat and neuralgia disappeared and never returned.

It is only the ignorant dentist or physician who treats neuralgia as a disease *per se*. Look for the cause and remove it, and the manifestation will at once disappear.

Southern Dental Journal.

DR. WM. H. ATKINSON AND OUR MARCH IN DENTISTRY.

Dr. G. A. Mills, New York City.

Coming, as I did, from a Massachusetts inland town to New York City, May, 1861, and imbued with a sincere longing for a something allied to professional attainments I possessed, I was ready to accept any proffered association that might satisfy my desire.

It is often the most unexpected that comes to us, and in no part of my career has it been more noticeable than in my professional life.

Dr. W. H. Atkinson, by a very providential experience, was also directed to New York City in June, 1861. That his coming proved a valuable event to the entire dental profession hardly needs any emphasis from me.

This was seemingly a novel transit for such a character, so unconventional, to be transplanted into a metropolitan atmosphere. Few of the profession in New York City, then including the prominent names of Drs. Parmley, Dwinelle, Duning, Rich, Foster and Dodge, gave him any recognition; these practitioners stood for all that was thought to be the standard. Dr. Atkinson's endowment was a fraternal nature, and a mental capacity that has known no equal in our ranks. He was truly a "teacher of teachers." These characteristics soon surrounded him with a class of listeners. In those days there were some who called him egotistic, but those now living can recall how childlike he seemed as they gathered eagerly about him and assimilated his instructions.

Dr. Atkinson's advent and its success was certainly phenomenal, both in his finding earnest listeners and a full demand for his services. This last encouragement was largely added to by those that came to witness his clinics, which were given on each Monday forenoon. At these clinics he never failed of patients, for he could always find a suitable case among his audience which he could use as valuable instruction. The novelty first introduced by him was the hand-mallet. Cohesive gold added another attraction, though not unknown. Contouring teeth deformed by caries was another.

He carried war into the common practice of deforming teeth by file and chisel, and denounced this as a sacrilege. While the method of contouring teeth had become part of our literature, it had at this period taken but little hold of general practice. True, in all his observations in nature, he called attention to the fact that to contour a tooth did not supply the demand of nature's use in a proper mastication. He demonstrated her needs in the mouth—viz., that lateral support throughout the entire arch was required. From this method originated the term “knuckling” teeth together. This idea was not easy to inculcate in the minds of many, for the prevailing practice of “self-cleaning spaces” predominated. It was for this purpose that he introduced the wood matrix to increase the space, that he might secure the firm support of tooth to tooth, or better, filling to tooth or filling to filling. Who will say at this day that he wrought not wisely and well in suggesting this valuable method, so largely recognized now by good operators, and for the lack of which much discomfort and loss of valuable teeth has resulted?

I need only to recur to these things to make the record true, and pass on without further detail, except to notice, for the benefit of young practitioners, the fact that this radical reform was commenced without the use of dental engines and rubber-dam. Think of the amount of hard, close, confining labor performed by hand instruments. This was in the spring of 1862, and rubber-dam came in 1866, the engine in 1870.

At this time disordered conditions of teeth were not looked on as generally amenable to surgical operations. Dr. Atkinson's reply was: “You can deal successfully with alveolar abscesses, acute and chronic, with as much hope of success as with any other part of the body.” This was emphasized so confidently by Dr. Atkinson that many a good practitioner replied, with a quick breath, “That is just what we all want to know how to do;” and just here he saw the necessity for foundation-teachings. Many of us will recall his familiar manner of accepting all men at first call, as knowing something of the things he was dealing with, yet often, finding how little was known, he would turn the major part of his interview into a teaching class. From the start he found it absolutely impossible to progress with his clinical cases without prefacing them with instructions. Sometimes his dealings were gentle, and then the opposite, for he would not let any one pass himself off for what he was not without trying, at least, to put him on the track of intelligence, regarding it as true friendship to lead one away from an error. An example worthy of our emulation!

Returning again to the surgical treatment of alveolar abscess. Heroic attention from the start: Creosote, No. 1; iodine, No. 2—a

saturated solution of crystallized iodine and creosote, half-and-half. Tannin and glycerin, No. 3; put all the tannin into a portion of glycerin that it would take up, making a stiff ointment. What have we in the place of these? If dead bone was associated, officinal preparations of aromatic sulfuric acid was used; if superficial, the bur was called on to remove it. This we will refer to later as the introduction of a systematic method dealing with surgical territory.

In the wood matrix the idea was to get direct access to all cavities, so far as practicable, and, by the aid of wedge or matrix, to arrive at a proximal cavity direct through the grinding surfaces. This was in direct opposition to the then common mode of procedure. To reach these obscure decays space was made by rubber pressure, which he condemned wholly, claiming that quick and rapid moving of teeth was the safest and most humane. It is easy to review, by a little activity of the mind, how evolution has carried us on. But all these facts will show that he was working a decided reform in dental practice, which was constantly italicizing the importance of saving teeth in a far larger sense than any practitioner had ever advocated, and out of his intensity originated the saying that followed him ever after, "To extract a tooth is an evidence of disability to save it." Is it not true to-day?

It soon came to pass that Dr. Atkinson's field was too circumscribed for his growing enthusiasm, and with his nucleus of ardent followers, he at the head and front always, came the formation of associations. The first body of this kind that had captured the attention of progressive men was the Brooklyn Dental Association. It had a name to live, and it did live, and it made alive all members that came in touch with it. What characterized it so much above anything before was its fraternal nature, generated by Dr. Atkinson. He became the moving and guiding factor with the entire body. For membership it knew no particular locality, only that the person was in pursuit of knowledge. With Dr. Atkinson a dentist was a dentist, and he did not feel that he demeaned himself that he aided the unwashed. Some men that he has helped and made fit for better things may have forgotten the pit from which he dug them. Do they?

With the growth of liberal associations Dr. Atkinson's opportunities widened for the greater work for which he was fitly prepared; and no meeting was complete till his voice had been heard. How many are the occasions in which he awoke us to a high pitch by his enthusiastic fervor? Many said he talked so high into the air that common mortals could never hope to follow him. How is it now? A consensus of his writings would show us how definitely

he has outlined the path of scientific attainment for future advancement. They are replete with the discussions of basal principles, without a knowledge of which we cannot hope to build an enduring work. His articles on "Histology," "Microscopy," "Inflammation," the "Origin of Pus," are rich with information, and he who becomes most able to assimilate them will become more a master of his calling. These articles are truly the whisperings of "the angels." They will never need any revision. A pet idea of his, he did not live to see put into practical operation, was teaching the student over the case; telling to each one, directly, his own needs. Professor Truman has hinted his learning in this direction. The school that first puts it into operation will set a potent example for good, and a lasting benefit to our calling. It will give education such an impetus as it has never known. Preaching dentistry by platform oratory is too stale for any one who has a mission in life to be patient enough to wait to hear. Whatever some may think of what have been termed vagaries of Dr. Atkinson, his spirit has become infectious, and the work of the future will be more zealous because of it.

I have gone over principally the mechanical phase, and this was more in the minds of his first admirers, and by this the door was effectually opened to emphasize the larger thoughts which were only waiting to be brought forth. The advancement of the views of such greater possibilities in the saving of teeth produced a suitable soil for the advocacy of a practice beyond anything before thought of, and this doctrine became imbued in the minds of wise-thinking practitioners. Dr. A. C. Hawes was inspired to offer that effectual resolution in the Brooklyn Dental Association, calling serious attention to the ruthless destruction of the natural teeth by extraction.

In this connection, Dr. Atkinson's active interests were almost unbounded, for he found in the "grand man," as he termed Heitzmann, a co-worker whom he had hardly hoped to discover. In him he recognized the "missing link" that Dr. Atkinson had so longed for in his chain of personal observation and investigation, and no one better knows than I do the ardor he applied in forming the first classes for microscopical study of the "morphology of tissues" in Heitzmann's laboratory.

No child was ever more enthusiastic over a new toy than Dr. Atkinson in that first class. We can hear him now exclaiming, as each beautiful new definition was shown under the lens and so intelligently explained by the professor. Dr. Heitzmann, too, caught the childish glee and carried no little of it into the spirit of his teachings; and why not? He had never known such cordial

acknowledgment, and it became such an inspiration as he had never before met. With this work has dawned on our calling a true scientific sky, and, true to the last, Dr. Atkinson, in the last speech he made before the Odontological Society, eulogized Heitzmann's reticulum theory. It was a tribute from a dying hero to a living hero in science. Dr. Atkinson has often said this work of Heitzmann's settles the question of a sure scientific foundation for our calling. This has crystallized into a concrete practice, which he had seen in his inspirations; and now they are ours in pages of books to remain. All honor to him who was permitted to see his desires realized!

In no one field have the teachings of Dr. Atkinson been more pre-eminently practical than in surgery. By his example he has reduced much of what had formerly become major surgery to minor surgery. His views were antagonistic to what was termed the "expectant treatment." For instance, if necrosis was manifested, nothing was thought of being done to conserve the parts, "but it must be left for the system to deal with it, trusting that a sequestrum would be the result." What may be called minor dealings in a wide range of lesions have been established as surgery in the chair, and robbed of its terrors.

International.

OBTUNDENTS.

Dr. A. C. Hewitt.

There is a strong desire for "painless dentistry" and a stress on the part of the operator to avoid giving pain. Quacks advertise obtundents both for sale and for use. I have taken some pains to investigate some of these compounds. That some of them possess the property of local anesthetics cannot be denied. And I have found that just in proportion to the effectiveness of the drugs the mixtures contain cocain in some form, even though advertised not to be made from any of the derivatives of the cocoa plant. So strikingly has this been the result of my experiments that I have been led to compound an obtundent. The result has been gratifying. My chief reliance has been on the hydrochlorate of cocain. Before giving you the formula that I employ I will detail a case or two by permission of my patients. Miss May Cleo Smith, D.D.S., of Kenosha, Wis., had a left superior bicuspid root that she wished removed. Gas? "No." Ether or Chloroform? Emphatically "No." I suggested my obtundent. "Yes, she would like that if I thought best." Her willingness and the growing pallor of the mouth and lips induced me to try it. I applied it in a way I shall

described, and removed the root, by no means an easy operation. Process and tissues were as firm as her will. I will describe the operation that you may be the better judge: Using a sharp-bladed forceps I thrust the outer blade along the root under the gum over the unabsorbed process, cutting my way to the point I judged sufficient, I passed the inner beak over gum and border that I might get a hold for extraction. After the root was removed she expressed the utmost gratification. She said: "It did not hurt, though I expected it would. I want your formula if you will favor me." Not a nervous person (hysterically), but of a fine organization, capable of suffering, clear-headed, conservative in her character, her words are weighty.

Mrs. P. had several teeth extracted, preparatory to a full upper denture. Averse to anesthetics, she yet readily assented to the obtundent. Seven teeth were to be removed. "Between times" she, unaided, leaned over the cuspidor and freed her mouth of blood. After the teeth were out she expressed the utmost satisfaction. "That is better than gas," said she; "I could feel the forceps grasp the tooth, but it did not hurt. I kept expecting it would hurt, but it was painless." In this case I gave from the mouth of the bottle, about four inhalations of chloroform. She was not aware she was taking the anesthetic. By the same method as in the last I extracted for another lady three solid roots, one an upper cuspid, and a cuspid tooth. The latter broke at the border, and I had to "reach" for the root. After the operation the patient, a large strong woman, said, "Oh, that is delightful! I am going to tell Mr.—, who has teeth to extract, no need of gas." I might add many others to the same purport.

The relief from shock, the help to operator and patient, has led me to its permanent adoption. I give you the formula and my mode of application. Perhaps the eminent in our profession may suggest an improved formula. I certainly should receive suggestions with much gratitude. I have been not a little perplexed to find a name that is at once suggestive, explanatory and honest. For want of a better, and for the present, I will name it *Compound Cocain Pigment*.

R. Cocain hydrochlorate.....	gr. cxx.
Atropin.....	gr. $\frac{1}{10}$.
Stropanthin	gr. $\frac{1}{2}$.
Hydronaphthol.....	gr. x.
Olei caryophylli.....	fl. 3 ij.
Olei cajputi	fl. 3 ij.
Glycerin.....	ad. fl. 3 j.

M. Sig.—Use with applicator as local anesthetic.

The cocain should be in characteristic prisms, of the smaller rhombic system, and large clean crystals; as that sold in fine powder is often adulterated with morphin and other substances to give it weight. Pulverize the cocain before mixing to hasten solution.

In Prof. Ingalls' work, "Diseases of the Chest, Throat and Nasal Passages," is to be found a formula for local anesthesia, which is as follows, and which I give by his permission :

R. Atropin.....	gr. $\frac{1}{10}$.
Stropanthin.....	gr. $\frac{1}{2}$.
Cocain hyd. chlor.....	gr. xx.
Acid carbolic.....	gr. x.
Olei caryophylli.....	℥. iij.
Aq. dist.....	ad. fl. $\bar{3}$ j.
M. Sig.—Local anesthetic.	

Dr. Ingalls informed me that the formula had been used under copyright, advertised for "painless dentistry," etc. The right to use sold at large figures. He also said that he deemed it safe as a "hypodermic" to the extent of five minims, and that its local anesthetic effect was marked and reliable.

A good way to apply the "Pigment" is, first to bathe the gums surrounding the teeth to be extracted, with alcohol and hydonapthol to remove mucus and all foreign substances from the gums and membrane surrounding the tooth, neck and roots. This is important. Second, with warm wax or modeling compound take an impression of the teeth or roots. Remove from the mouth and slightly enlarge and deepen the impression of the several teeth or roots to be drawn. Place a small pledget of absorbent cotton, dipped in the pigment, in the enlarged tooth and root impressions, and carry to the mouth, which, after the alcohol, should be made as dry as possible. Press firmly home and hold there from four to ten minutes. Three things are essential to success: Clean gums and necks of teeth, absence of saliva, and close contact by the mixture. Do some of you say, "That is too much fuss, too much nicety of preparation?" To such I reply, Do not use it, you will fail.

Dental Register.

PHENACETIN.

Dr. W. H. Wright.

This is extremely useful where the patient is suffering from acute alveolar abscesses, with all accompanying febrile and distressing symptoms—loss of sleep and general nervous irritability.

I have used it with great satisfaction to my patients, in doses of from five to seven grains, repeated once in three to four hours. The result has been to induce sleep and to reduce the temperature.

Phenacetin is one of the safest and most valuable products of the coal-tar series which are in use to produce hypnotic effects. It is much to have in our hands so good a substitute for quieting pain, instead of resorting to the hypodermic injection of morphia, inducing in many cases a habit which eventually wrecks the poor victim. I give some examples of the way this new antipyretic acts with my patients. The wife of a "druggist" writes me as follows: "I deem it a pleasure to speak a good word for phenacetin, as it has proved a safe and certain drug in relieving severe neuralgic pain, as well as allaying high fever and intense nervousness in my little son, five years of age, after having two large teeth extracted. He is of a highly excitable temperament and inclined to spasms. The second night after the teeth were out his sleep was troubled, high fever, moanings, with twitching of the muscles. Fearing a fit I carefully aroused him about midnight, and followed the directions of our dentist, by giving a four-grain phenacetin powder. In a short time he was in a gentle perspiration and sleeping quietly. The succeeding nights I gave a four-grain powder on his retiring, and thus secured perfect rest without serious after effects. In my own case it was none the less beneficial. After suffering twelve hours with neuralgia, caused in part by a diseased tooth, I took two five-grain tablets, allowing thirty minutes between them. What narcotics and chloroform did not do, phenacetin quickly accomplished."

Another case. In October last, Mrs. S. B. L. came to me for treatment, suffering intensely from an ulcerated lower bicuspid. She had not slept much for several nights. Inflammation extended to the cheek, ear, and eye. As she resided too far away to receive daily local treatment, I applied usual remedies locally, and prescribed five-grain phenacetin tablets. After taking two she was entirely relieved and had no further trouble, and subsequently the tooth was filled and is doing good service. Again, in the latter part of February I fitted two crowns on to old roots. She went home suffering much from inflammation of the gums. She was obliged to take two tablets for three nights, and has had no trouble since. We have in this new agent a very valuable assistant in fighting inflammatory action met with in our practice.

Ohio Journal.

Well, friend, how fared the year? Your hearty hand in another subscription!

CHLOROFORM AS AN OBTUNDENT.

Dr A. C. Hewitt.

Having tested almost numberless devices, from a sponge to an elaborate machine, I have chosen a means so simple as to be almost ludicrous. A wide mouthed half-ounce to ounce bottle. An ordinary morphine bottle is as good as any. Any glass bottle two and one-half inches high, an inch and one-half diameter, with mouth three-fourths of an inch across will do. Of course, it should be clean. If the chloroform is to be kept in the bottle after administration, the cork or stopper should be hermetical, and the bottle wrapped in dark paper, and kept in a dark place. The chloroform should be pure, never of a doubtful manufacture. No preparation of the patient is necessary, except that an empty stomach is to be preferred. Or if given soon after a meal the food should be light in quality and quantity; otherwise, if the obtundent effect is pushed to, or near the anesthetic line, slight nausea may supervene, the only ill effect I have observed even with the stomach overloaded.

Place not to exceed a teaspoonful of chloroform in the bottle. With it open, place it near one nostril of the patient, nearly on a level with the nose, remembering that the vapor of chloroform is heavier than the atmosphere, and the narcotized air tends to fall. Compress the opposite nostril, and direct the patient to take long inhalations across the bottle's mouth. Do not tolerate spasmodic or jerky breathing. When an inhalation has occurred remove the bottle, so that nothing exhaled shall enter to contaminate the chloroform. At first the bottle should be distant enough for only the faintest odor to be detected.

Avoid shock—the first, more common cause of death from chloroform. As the long regular breathing goes on, the bottle can be neared till stronger vapor is taken. Presently the eyelids will begin to droop or “wink lazily;” the muscles somewhat relax, and an *obtundure*, if I may coin the word, creeps over the nerves. In such a state I extract my tooth. In such a condition patients will submit to merciless cutting or drilling sensitive dentine. In this condition the drill or bur can be carried to the live pulp and the pulp be amputated, and afterward the patient will say, “I knew what you were doing, but it did not hurt.” Children will sometimes moan and cry out, but after restoration express no resentment, and all dread of subsequent operations is dispelled.

Since writing the above, the April number of *The Dental, Surgical Microcosm* has come into my hands, wherein I find my views

ably supported. Dr. J. R. Simms, speaking of anesthetics, says, "A true anesthetic should not produce any irritation of the epiglottis, bronchial tubes, or pulmonary membranes."

Is the way I have described safe and sufficient as an obtundent, and practical for daily operative use? I answer with all the emphasis at my command, *yes!*

The Rev. Dr. Lawrence, of Chicago, says of it after an operation on exceedingly sensitive teeth: "I have carefully watched the effects on myself of the use of chloroform while undergoing dental operations. Of course, I know that the application was not such as to be a full one. I have been conscious most, if not all, of the time, and yet I have had no pain, and, what was better, no fear of pain, and consequently none of that frightful nervous strain, which is really more trying in the present and the future relation of the patient.

"I have not detected the slightest ill effect on any function after leaving the dentist's chair; on the contrary, I experienced a physical sense of comfort and relief.

"I was in my childhood prejudiced against all anesthetics, and especially chloroform. I tried the experiment because of my nervous sensibility, and with reluctance and close inspection of every symptom. My experience has in my case fully justified and commended the application."

Dr. Homer Thomas, of Chicago, permits me to quote him as giving hearty approval of such a use of chloroform. By him I was authorized to so employ it for his wife and children.

Dr. E. Fletcher Ingalls, of Chicago, Professor of Diseases of the Throat and Chest in Rush Medical College, and in the Northwestern University Woman's Medical-School, pays me an unusual and esteemed compliment by permitting the use of his name in endorsement in such a use of chloroform. He says:

"Having witnessed two deaths from chloroform I was naturally averse to its use in dental operations on my family. However, yielding to the request of my wife that she might take it, and trusting to the care and experience of our dentist, I consented to the careful use of chloroform in this way, not only with her but with my children, and I am greatly pleased with the result. The operations which formerly caused the most intense suffering and dread are in this way easily borne and satisfactorily finished.

"I am greatly interested in this method of using this anesthetic, and have for years advised a similar plan, which I first saw recommended by Balfour for the relief of the agony of angina pectoris. Thus used it appears perfectly safe, but I confess myself surprised to find it so effective in preventing pain."

During more than twelve past years, at my office, I have thus administered chloroform as an obtundent to all sorts of patients (if I may thus describe them), with no other ill effect than the slight nausea that I have described. I cannot truthfully claim immunity from ill results of operations where no obtundents have been permitted. Shock and nervous illness have followed many times consequent on operations when, from prejudice, I was not permitted its use, and that, too, though I have long since learned the attendant danger, and have gradually lessened the length of the sittings.

Register.

Caustic pyrozone is prepared by McKerson & Robbins. I do not know the method of preparation, that is probably a secret of the manufacturers, as no other house is offering it. I have no doubt that it can be procured direct from the druggist; but the dental depots also have it in stock now. *R. Ottolengui.*

A NEW MEANS OF MOUTH-LIGHTING.

The help afforded to a successful diagnosis by means of a powerful and convenient form of incandescent lamp, and the benefits derived therefrom, have been unappreciated in the past; and considering the rapid advance made by the dental profession in the line of appliances, it seems all the more remarkable that up to the present we have been satisfied with the somewhat cumbrous and inefficient means of lighting so far given.

The medical profession is ahead of us in this respect. It has caused the electric companies to manufacture all kinds of useful lamps, and it is due to that profession that we enjoy what I consider a great privilege. It was made for surgical use in intra-uterine work, and consists of a glass tube, seven inches long and three-eighths of an inch in diameter, the light end being rounded and slightly constricted, forming a neck, the other end being covered with hard rubber for the space of an inch or so, into which the wires pass.

It gives six-candle power (twelve times the light given by any thing before in use), with but six volts, the current obtainable from a storage battery of three cells or from a Partz acid gravity battery of six cells, and is convenient in size and shape, and free from any mirror attachment. This is a decided advantage, for it can be carried to any point within the mouth, and with the mirror in the other hand its rays can be thrown in any direction. These lamps

are used for inspection only, as the heat evolved precludes their use any great length of time in the mouth.

By its use the differentiation of vital from devitalized teeth is always easy; a hidden cavity, however small, is demonstrated; the minute unevenness in cavity-edges, when prepared for the gold, is plainly apparent; the line of approach of pulp-chamber to cutting-edge, the knowledge of which is so important at times, is shown; the doubt as to enamel being checked or cracked is cleared up; and many other uses I need not mention are subserved. The lamp costs but four dollars and fifty cents.

It can be hung near to or from the bracket, with a push-button set by the chair in easy reach of the operator's foot and the connection so made.

A resistance coil is a necessity, for the voltage may at times be too great for the safety of the lamp, and by this the current is regulated in accordance with the need as indicated by the voltmeter, or, as the operator becomes proficient, as indicated by the color of the light.

W. B. Sherman, D.D.S., San Francisco, Cal., in Cosmos.

THE MATRIX.

Dr. Hungerford.

The advantages of using a matrix for gold fillings is that it gives you a fourth wall on which to condense your gold; it enables you more readily to separate your fillings; it does not necessitate so much under-cutting and weakening of the cervical margin; it enables you to use less material, a less number of blows on the tooth, so that there is less likelihood of fracturing the enamel; and the filling, after it has been inserted, is in a more perfectly dense and more perfectly finished condition than if put in without it. I think the advantages in the saving of time and pain to the patient are also considerable.

The disadvantages are the greater difficulty of access to some cavities, and the danger of fracturing the margins of the cavity by the careless insertion of the matrix. If a matrix is well adapted to the position in which it is placed, and carefully and thoroughly inserted in that position, I think in all proximal cavities between bicuspid and molars, the use of a matrix has all the advantages I have named in its favor, and no disadvantages. You will understand, however, that it is sometimes difficult to find a matrix that is exactly adapted to the position in which you wish to place it. It has been my experience that band matrices of all descriptions are fallacies. If a tooth stands isolated it is nearly always

possible, and just as practical, to fill that tooth without a matrix as with it. But teeth that are wedged tightly against each other, where you are in danger of fracturing the cervical margin and crowding low down against the alveolar process or against the gum septum, it is advisable something should be placed there that would prevent it.

Band matrices, as I have seen them, and as my conception of mechanics would teach me, are unscientific and non-mechanical appliances for that purpose, from the fact that to tighten them you are compelled to bring the greatest amount of strain on the weakest portion of the tooth, namely, on the weak and friable margins. You also have many teeth which are larger in their central diameter than at their cervical margin; consequently, there is a large space at the cervical margin in which the filling is crowded down and wedged against the gum tissue. The Woodruff matrix comes nearest to meeting all requirements, fitting in proximally between teeth with two little screws, one on the inside and one on the out, and so impinging on the adjacent tooth as to force the lower edge of the matrix against the cervical margin of the tooth, thus forcing the edge below the point at which the cavity extends. There is no strain brought to bear on the weak portion of the tooth after the Woodruff matrix has been inserted.

With plastics I think there is everything to be said in its favor and nothing against its use, from the fact that plastics, especially amalgam, to be inserted well should be inserted with a reasonable amount of pressure, which can not be brought to bear on ordinary fillings in cavities, except in the crown cavities, without the aid of a matrix. I do not believe an amalgam filling can be inserted by pressure in a proximal cavity running into the crown surface, unless you use the matrix; for, as you press against the outside, you press out against the crown side, and as you press on the crown side you press out the proximal.

Western Dental Journal.

CURING A POLYPUS, A TUMOR, AND CATARRH.

Mrs. W. had a small growth attached to the superior maxilla just behind the left cuspid, which would bleed profusely on the slightest provocation. It gave no special pain, but had been a source of some anxiety. No diagnosis was given the patient; but the parts were well cocaineized and the gum tissue cut away with a scalpel, and then the surface of the bone freely cut away with a bur at the point of attachment. The parts were well cleansed and antiseptized, and the patient dismissed. All this was done at

one sitting, without ever alarming the patient with the fact that she had polypus, and that it must be cut out. She was entirely cured.

Mrs. S. had a large gelatinoid polypus in each nostril, so as to completely close the air passages in damp weather. The attachment was so far up that I had to tear it away with an alligator forceps—some hemorrhage and considerable pain, so that the patient was dismissed for another time to extract the other. Not completed yet.

TUMOR.

Mrs. M. had a tumor on the side of the nose just opposite the eye, about the size of a cherry seed. It had been coming for about seven weeks. The patient was very frail, and she and her husband were very nervous over it, fearing it was a cancer. With a hypodermic syringe I injected cocain, and with little pain cut out a fatty tumor, to the great satisfaction and relief of the patient and her husband. I scraped out the cavity with a spoon-shaped instrument, and then filled it with a piece of cotton saturated with campho-phenique, full strength. In about ten minutes I took that out, laid the edges of the wound together and covered with court-plaster. Dismissed.

CATARRH.

Thousands of persons suffer from catarrh, who might be greatly relieved, if not permanently cured, by the intelligent dentist. Serious complications and unyielding sore throats often come from mouth-breathing; and mouth-breathing is most frequently the result of nasal stoppage. Frequently one nostril is nearly closed by spurs or prominences on the septum of the nose, which can be removed by the skilful dentist; and the breathing passages nearly doubled by their removal, to the great relief and permanent benefit of the sufferer.

With a nasal speculum and a reflecting hand-mirror, the nasal passages can be explored with great satisfaction. Then by cocainizing the parts well, and with a good trephine on the dental engine the spurs can be almost painlessly removed. The wounded parts should be cleaned with peroxid of hydrogen, and the patient dismissed with the hope of a permanent cure. I have treated six cases recently of this character with the very best of results. It also greatly improves the hearing when it is impaired from catarrh of the eustachian tube.

Dr. C. A. Rominger, in Southern Journal.

Dr. N. Clark, D.D.S., England, asks:

1st. What amount of arsenic is used to the ounce of metal in making gold solder? Is it thrown in when the metal is quite melted?

2d. In making band gold and wire how much platinum should be used to the ounce? Is it correct that a current of electricity running through the molten metal causes the platinum to be equally distributed throughout the gold?

ANSWER.

1st. We prefer *no* arsenic in gold solder. Does the experience of others differ from ours?

2d. One-tenth platina makes gold tough and springy. The amount of platine depends on the purpose of the alloy.

Thorough stirring, when well melted, is better than electricity to thoroughly mix the metals. Whether electricity or mixing is used the alloy must be poured into the mold quickly after the agitation.

—ED. ITEMS. ~~XXXXXXXXXX~~

OFFICE TUITION AFTER GRADUATION.

Discussion in California Society.

Dr. Knowles: I think there ought to be office tuition after a dental student has graduated. When a young man graduates he does not know very much. He is almost entirely lacking in practical experience. Though the course of instruction at dental colleges is more calculated to give a man a practical idea of what he has to do than it is in medicine or perhaps in law, still the young man has not had experience enough to give an opinion that is of value. Clinical instruction is a splendid thing. But a young man cannot drill his hand so as to have thorough control, even if he is naturally dexterous, in a year or two.

Dr. Moore: Graduates ought to add office practice to their college experience. I have had experience with four or five graduates. While theoretically they were well posted, practically they were not adapted. I am having an experience now, a severe experience, too. A young man who graduates, who has never had office practice, is going to be disappointed, I care not where he comes from. If he has not had office experience he don't know much about practice.

Dr. Knowles: I think that is pretty generally recognized. The fact that post-graduate colleges are established in medicine and dentistry, is sufficient to show that a student who graduates is not competent to practice. There is much more he should know. If a young man is wise he will associate himself with some older practitioner, a man of skill, experience and reputation.

I have two teeth in my mouth the pulps of which were devitalized, the roots filled with creosoted cotton, and the crowns with

amalgam, about twenty-two years ago, by my preceptor, Dr. Brown. After the lapse of twelve years the fillings were removed and the cavities refilled; till this time I did not know the pulps had been devitalized, and, with the exception of a little peridental irritation of one at the time, due to the unnecessary removal of root-filling to substitute a solid one at the apex (in most cases a bad practice), the teeth and surroundings have been perfectly healthful and useful. They appear to be good for at least a score more years of active service.

I could give instances of teeth having been treated likewise, in which more than forty years of uninterrupted health and usefulness have been enjoyed.

C. Harper.

Electricity is becoming quite common for dental use, especially where a current is procurable from a street circuit. The devices used are not all satisfactory, and those which work nicely with some are not permanently successful with others. To harness electricity to our use we should make the whole subject a study. However perfect our apparatus, or abundant our supply, we shall have trouble if we depend on professionals to keep it in order. It would not be profitable to refer to particular devices. In nearly all sections there are some good, and improvements are so frequently being invented that the wide-awake dentist will be as likely to find the best, as we should be to advise the best.

By all means, and in spite of the smallest income, retrench your expenses so as to have three luxuries: First, a fire insurance on your property; second, an insurance on your life; and third, a little cash laid aside for a rainy day. Impossible? There are few of us who could not leave out of our expenses something which would make a reserve fund. It is astonishing to see on how little we can live, *and enjoy life*, and how much we indulge in that is superfluous, or at least unnecessary. And such economy lays the foundation for a life of health, wealth and happiness.

We were a long time trying to turn a lateral once. We became impatient, and so did the girl. Though extremely sore, we took it by the forceps and twisted it into position. It was not a painful process, and was easily done, for it had been made loose by inflammation in its socket. By tying it firmly to the adjoining teeth, we had no difficulty in keeping it there, and it soon became firm. After that we were not long moving such teeth, after we had gotten them loose by pressure.

HINTS.

Be sure you advance, though slowly. Do not deceive yourself and imagine progress where there is none; and do not be contented with a little where there should be much. As I look back and see how lazy I have been, and what slow progress I have made, I am ashamed of myself. Let us be content with nothing but our best.

* * *

Time is valuable only as we spend it to profit. Therefore, the value of life should be estimated by its deeds, not years.

* * *

Take up the most difficult parts of your work and master them more thoroughly than any of your associates have done, continually searching and working for the unattained.

* * *

We have croakers among us, and some things to croak about; but when we consider that our profession is hardly more than a generation old we may well boast of its progressive strides.

* * *

We carry our own atmosphere with us. It may be ever so gloomy without, yet we may have sunshine within. Our atmosphere depends on our character, and our character depends on our will.

* * *

In our profession there are a few who stand out prominently as the exponents of some distinct advantage. They are suns, while others are satellites. Add to your skill something the public need, and it will be your fortune.

* * *

While it is true that the humblest citizen may become great and influential, it is equally true that the road from where he is to where he would be must be made by himself, and that it depends on the character of that road to determine his progress.

* * *

It is not so much what we know that profits us or the world, but the use we make of it. A few thoughts and facts well digested and used make a half idiot seem wise, and is sure to make him useful, happy, and successful.

* * *

Sometimes the genius is not as successful as the dull scholar. The genius commits his lessons easily, but the very difficulties of the thick-headed fellow bring development and appreciation of what he learns which carries him beyond the easy attainments of the genius.

"Professional status" is not always the guarantee of honorable preferment in high places, as the following anecdote of His Holiness, Pope Leo XIII., seems to indicate. It appears that at the end of last year, His Holiness had been severely annoyed by two decayed teeth, and his physician, Dr. Ceccarelli, advised him to have them out. His Holiness, while acquiescing, remarked he would have none of those dentists who are merely trained in theory. He wanted a "thoroughly experienced practical man." Consequently, a "tooth-puller," i.e., a barber, was called in, who relieved His Holiness of his pains without further ado.

* * *

All things are not what they appear. Green may appear blue and blue green. In fact, the color in everything is not in itself, but in the arrangements of its particles to receive the rays of light. Snow appears white because it is an aggregation of an infinite number of minute crystals, each reflecting all the colors of the rainbow; these colors uniting before they reach the eye cause it to appear white.

* * *

He who does not improve by his experience must have a poor experience, and he who does not improve his instruments, must have poor instruments. Yet we have heard dentists say they can use any instrument, and that they have gotten where their work has become routine and perfunctionary. This may be given as a boast, but it shows egotism; it is intended to show a ripe experience, but it shows stagnation. He who is not climbing is declining.

* * *

What every person can do, or every one in my sphere, is only ordinary, and will yield but ordinary compensation; but what others cannot do, and I can, has a value to me that others cannot rob me of. Therefore, I do not care how difficult it is to do a thing, if it is desirable to do it, and if I can do it by very great perseverance. The more difficult it is, the better it is for me; for the very fact that it is difficult will give me, in attaining it, increased skill and fewer competitors.

* * *

The genius and the plodder should go hand in hand, for the two qualities are seldom found in one person. We hear often of the ingenious man being robbed of his inventions by the unscrupulous capitalist or stealthy workman. No doubt this is sometimes true; but often the genius is fickle, tiring of important discoveries before they are perfected; or if completed, he throws them aside as a spoiled child tires of his toys, and flies off in a tangent for

something unseen. The observent plodder picks them up and makes his fortune. They may become so altered by being changed from a toy to something useful the genius may not recognize them as his; and if he does, he has no one to blame but himself. Yet it is dangerous for a plodder to touch these half-perfected oddities; and many which are finished products are too intricate and impractical for common use, for most ingenious men lack the sense necessary for profitable issues. Yet their very mysteries are enchanting to the novice, and he is sometimes led on to his financial destruction. Blessed is that genius who has common sense, and blessed is that plodder who has uncommon sense, and doubly blessed is that man who has both.

* * *

We cannot judge of what another dentist can do by what we can do. What fails with us may be an eminent success with another; and what we may succeed with admirably may be a failure with him. This calls for great charity of judgment. You may say, "What another can do I can do." No; it can hardly be explained, but facts dispute it. The manipulation may appear the same, but it is not; the application of the remedy may seem to be similar, but there is a difference. The results differ accordingly. But we should do our best to succeed where the most ingenious have succeeded.

* * *

How thoughtless, improvident and unprogressive some dentists are! Mighty forces develop all about them—vast changes for their benefit, wonderful improvements in their own specialty—yet they shut out the light, and sit in their own gloom and barrenness. To attract them to a higher sphere, a whole world of art and science and literature surrounds them, and yet they see no attractions. Spiritless, shiftless and lazy, penniless, improvident and short-sighted; soured, croaking and crochety, they brood over their self-afflicted sufferings, and wonder they cannot catch flies with vinegar and wealth with inaction. They have eyes, but they see not; ears, but they hear not, neither do they understand; they have brains, but they think not; muscles, but they act not, and fingers, but they are not skilled; opportunities are within their reach, but they do not improve them; profitable work presses on them, but they cannot do it, and wealth, but they are not prepared to earn it. Everything grand and desirable is offered them, but everything has its price. So they mope on, stumbling and dumb, a disgrace to the profession and useless to themselves.

ITEMS.

The dentist should be a teacher as well as operator. He can do much good in that way, and has a good opportunity. He should keep his morals and principles as clean as his hands.

Dr. A. V. Elliott.

* * *
We know spelling is a difficult art, but it is seldom we find seven wrongly spelt words in one sentence. Here is one: "Will you pleas tell me whear I con make aplications for lincance to practis dintestry in S. Dacota?"

* * *
Emeline Roberts Jones, of New Haven, Conn., was assistant in her husband's office prior to 1859, and at his death, in 1863, continued the practice of dentistry in her name, and merits the distinction of being the "pioneer woman dentist."

* * *
AN ERROR.—In December ITEMS, page 762, the editor says: "A chief province of the liver is to produce urea." This, of course, was a blunder. It should have read: "*the kidneys*," instead of "the liver." It so reads in our manuscript, and how the change came we cannot conceive. In the next sentence it is spoken of in connection with the kidneys, which makes plain the error of the first sentence.

* * *
Cement should be inserted into the cavity with a reasonable degree of softness—sticky properties that will not permit of any great amount of pressure—and when the cement has sufficiently commenced its crystallizing process to permit of your putting pressure on it, then pressure put on it will tend to break up its crystals, and you will have a more weak and friable filling than you would have if you put the cement in there soft and allowed it to harden without disturbing it.

Dr. Hungerford.

* * *
Let us admit that none of us get access to some canals, and then find some way of treating them. I had not the least idea, two or three months ago, that the treatment of those inaccessible canals would be solved so quickly. In talking about the bleaching properties of sodium peroxid we are overlooking its great usefulness. This is an agent that will go into every one of the tubuli, destroying and dissolving the organic matter there contained, and also throw it out; and if that is true, we have here an agent for the complete sterilization of those fine canals in the distorted and narrow roots of molars of great importance.

Cosmos.

We are informed that it costs the people of the United States each year, to be born, \$22,000,000; to be married, \$300,000,000, and to be buried, \$75,000,000; while to get drunk the people pay \$900,000,000. 'Tis also said that this bill for drunks is larger than the bill for all the bread and meat consumed by the same people.

Ohio Journal.

* * *

Hydronaphthol as a dressing to septic root canals has few equals. I think there is nothing superior or more convenient:

- R. Olei caryophylli
 Olei cassia (buds).....āā. fl. j.
 Hydronaphthol..... grs. xx.
 M. Sig.—Antiseptic for root canals.

Thanks to Prof. Harlan for the suggestion leading to the formula.

* * *

There is a little difference between English dentists and American dentists. American dentists are practical men. They have made dentistry a science. It is America that has made dentistry what it is. In all their contributions to the dental journals there is a practical element which the European dentist is glad to avail himself of. European dentists are more inclined to affect the scientific side of dentistry. The strong common sense of the English people rebels when they find in the city of London a dentist who could not have got a living in a one-horse town in Illinois or California, who has an idea that a smattering of medical knowledge is all that is required to make a dentist. English common sense has rebelled against that, and they are now requiring the practical side of the question.

Dr. P. Shaw, England.

* * *

FOR TEETHING.—It will make much difference with our patients, especially the little ones, if we have so kindly a remedy, so wide in the range of its usefulness, as phenacetin. This is especially valuable with children in mild febrile reaction of childhood, which, arising from slight intestinal irritation, is so common during the eruption of the teeth. It is soothing in its influence when administered in doses of from two to four grains once in three hours. Generally it induces grateful and refreshing sleep, and that moist condition so much to be desired. Slight irritations may thus be subdued, which, if unrelieved, may prove serious. We should not lose sight of the value of lancing the gums over the approaching tooth, to relieve the pressure on the sensitive nerves, and thus kindly aid nature in its task of bringing a new tooth into the world of dental usefulness.

Dr. W. H. Wright, in Ohio Journal.

I do not believe with some that the whole office of a tooth-pulp has been performed when it has finished the construction of the tooth in which it is located ; on the contrary, I hold that its function never ceases while it is in comparative health.

It continues to nourish the dentine, and, under some circumstances, to elaborate secondary dentine, notably when the pulp is being encroached on, owing to mechanical or chemico-mechanical abrasion, and when caries is threatening exposure. I do not, therefore, wish, nor would I dare to claim, that a dead tooth is as good as a live one, other things being equal.

C. Harker.

* * *

To get a tin model on which to vulcanize, a plaster cast free from imperfections or blisters is carefully dried and dipped into molten stearin. When hardened, a sand mold from this model is made in the usual way, into which tin is poured, and when slightly congealed at the edges the still fluid portion of the tin is poured back into the melting ladle. A thin shell of tin will be left as a lining to the sand matrix. This shell furnishes a perfect model after the hollow interior is filled with plaster. If the pouring back is delayed too long the tin shell will be found to be too thick, but the right moment for repouring will be easily found by a little experience. Before the plaster of paris is poured into the tin shell, the latter is to be cut at different places with a very thin saw from the outer margin toward the alveolar ridge. These thin incisions will permit the removal of the tin shell after vulcanizing, by bending the sections of tin to the inside, so that the plate may be readily separated from the model. Plates so vulcanized need no further polishing on the palatine surface.

Zahntechnische Reform.

* * *

Sodium peroxid (Na_2O_2), till recently known only as one of the rarer products of the chemical laboratory, has by means of improved processes been produced in England at a cost which places this interesting substance on a commercial basis, and it is now offered as an economical bleaching agent for silk, wool, and other materials and fabrics. This compound is the chemical analog of hydrogen peroxid, but it possesses the important advantage of containing about twenty per cent of available bleaching oxygen, as against only about three per cent of available oxygen in the ordinary fifteen-volume aqueous solutions of hydrogen peroxid as found in the market. Theoretical considerations seem to point to sodium peroxid as the material *par excellence* for bleaching discolored teeth in the mouth, and as a germicide and antiseptic in the treatment of the putrescent contents of pulp canals.

Dental Cosmos.

OUR QUESTION BOX.

With Replies From The Best Dental Authorities.

[Address all Questions for this Department to Dr. E. N. Francis, Uvalde, Texas.]

Question 128. *What treatment is advisable when a lower third molar, partially erupted, is causing inflammation and great annoyance?*

Lance the gum or remove second molar.

F. H. Ellsworth, Wellsville, N. J.

If room cannot be obtained for its eruption, and extraction is impossible, remove the second molar. *W. O. Robinson, Parker, S. Dak.*

Lance, if tissue covers crown of tooth, and apply locally equal parts of creosote and iodine, or use gargle of water, honey and official tincture of iodine. *A. L. Brown, Perry, Iowa.*

Remove overlapping edges of gum from the tooth and apply astringents. If this fails to give relief, and inflammation does not subside, extract.

T. M. Allen, Birmingham, Ala.

I have rarely had trouble with these cases after thoroughly excising the gum from crown of tooth, with scissors or guillotine forceps, and applying aconite and iodine. *H. G. Saunders, Chattanooga, Tenn.*

Apply tincture iodine and aconite, equal parts, to the inflamed gum. When necessary, lance gum over the tooth. If owing to lack of room for full eruption, extract. *H. F. Naumann, Quincy, Ill.*

I have for many years been accustomed to treat such cases as follows: Cut or slit the gum over tooth, apply a small piece of moistened cotton with a slight sprinkling of tannin. Direct the patient to close the teeth and retain it in that position for one or two hours. After a day or two it will give no further trouble. I have seldom had a patient return for second treatment.

J. H. Batchelder, Salem, Mass.

Question 129. *A lady, age twenty-four, with bilious temperament, three years ago noticed the gums over roots of teeth on the left upper side enlarging. This has continually increased till it presents quite an abnormal appearance, most prominent over the first bicuspid and second molar. The gums are perfectly healthy in appearance, and no pain or trouble has been experienced. It appears like an abnormal growth of healthy bone, but is disfiguring her face. What can be done?*

The growth may be of scrofulous origin. If not, and not caused by diseased teeth, I would dissect gum away and remove enlargement with chisel or engine. *H. G. Saunders.*

Refer the case to a good surgeon.

F. H. Ellsworth.

So long as there is no evidence of malignant disease of the bone, I should let it alone. Probably nothing short of excision of entire process will do any good.

W. O. Robinson.

I would suppose it a case of induration of the gums, resulting, perhaps, from a diseased tooth. The tooth may not have given any pain, but expended itself in impairing the functions, producing a morbid or inactive condition of the part. The exuded lymph coagulates in the interstices of the cells and produces the hardness of tissue. Apply tincture of capsicum or aconit to excite irritation, lancing freely to promote suppuration. If the growth continues, extract the teeth over which the enlargement commenced.

T. M. Allen.

I think it is hypertrophy. I have a cast of a very marked case that came under my treatment. I took the patient to the Massachusetts hospital where she was operated on by Dr. J. C. Warren, the most distinguished surgeon of Boston. In six weeks she entirely recovered, no deformity existed, and her face had resumed its pleasant and natural appearance. If you wish I will send a cast illustrating it.

J. H. Batchelder.

[We shall be pleased to see a cast.—ED.]

I think the enlargement due to a cyst connected with the teeth, the growth of which is slow and often painless. If a dentigerous cyst it is caused by an undeveloped tooth. Examine carefully for a temporary tooth occupying a position in the arch or possibly an impacted supernumerary. Remove the offending tooth, which will generally effect a cure. If caused by enlarged cyst surrounding roots of the teeth, a puncture through the bony walls of the enlargement will show a discharge of a clear fluid. I would treat by freely opening into the bony walls and, if possible, remove a part. The cavity formed should heal by granulation—injections to be used if necessary.

H. F. Naumann.

Question 130. *A man of twenty-five years periodically has trouble with his jaw. It comes on when eating, especially after sitting in a draft or during damp weather. The jaw will snap and become so sore that mastication is difficult. He never had dislocation, and the four third molars are erupted. The patient has experienced this trouble for three years. What treatment do you suggest?*

This is rheumatism and should be treated as such.

F. H. Ellsworth.

I should consider patient a first-class subject for lock-jaw. Avoid food that requires much effort to masticate. Possibly shortening third molars so that they can not be used at all may help.

W. O. Robinson.

I suppose the trouble is about the glenoid fosse, and should judge there was a slight dislocation every time the jaw snapped. It may be a relaxation of the capsular ligament, allowing some tissue to become pinched in the joint, or, possibly, want of function in synovial glands or membranes, and not enough lubrication. I can not make a diagnosis from the description. If caused by relaxation and debility, I would try electricity, with a tonic of strychnia, iron, and quinin.

H. G. Saunders.

Question 131. *An upper right lateral incisor having a large filling on one side, and small one on back, is very much discolored and growing darker. The root is filled. What shall I do?*

Remove small filling on back if the larger filling is in good condition, and remove the filling in the root. Thoroughly cleanse the root, remove discolored dentine from walls of pulp chamber, seal the foramen and bleach with peroxid of hydrogen, chlorid of lime and tartaric acid, or some of the various chemicals used for the purpose. The condition of the tooth and extent of discoloration must govern the treatment and selection of bleaching agent. After bleaching fill temporarily with oxiphosphate.

Question 132. *In crowning front teeth would you use a band? If so, can it be prevented from showing? What crown is best for front teeth?*

Porcelain crowns are generally used without bands. If the root is frail and band support is necessary, make the band very narrow in front and quite wide at back. If the root will permit, and can be cut wedge shape—low in front and high in back—a half band can be used to advantage, extending around back of root soldered to a thin piece of gold placed between the root and crown, and then the fixture securely attached to crown pin. In amalgam anchorage this should be constructed of platina, but amalgam is seldom used for front teeth. The crown used depends on the character of the tooth and your skill in fitting.

Question 133. *In repairing a gum section—rubber denture—how can darkening of joints be prevented?*

By the use of cement placed on clean joints before forcing to place, or by strips of foil so placed between blocks that rubber or investment can not be forced between them while closing flask.

Question 134. *A lady has in her lower first molar a large distal proximal cavity, not involving the crown. The cavity extends below the gum, which is highly inflamed and very sensitive, and has grown over the margin of cavity. The patient is very nervous. What is the best and least painful treatment?*

Large cavities of this description usually have a thin shelving of crown enamel, which for a permanent operation should be cut away. This will give access to the cavity. Wipe out the cavity with carbolic acid and oil of cloves or campho-phenique, or a weak solution of cocain, allowing it to come in contact with the inflamed gum. If the second molar is present, cotton with oil of cloves and tannic acid can be carefully wedged into the cavity and covered with a layer of cotton and varnish. This should be removed in two or three days and pressure increased in applying second dressing. When the gum has been forced from the cavity, remove all soft decay and fill with gutta-percha base plate, leaving a surplus to be crowded down with a warm burnisher every day or two till the gum is forced a sufficient distance to allow the application of the rubber-dam. If unable to apply the dam, fill the lower portion of cavity with amalgam, and in a day or two slip the dam over the tooth and finish with gold. This is a slow process, but with nervous patients is

quite successful. To save time we prefer to apply cocain, and with a sharp excavator, or properly shaped lance, remove the gum from the edge of the cavity. Cotton saturated with campho-phenique can then be forced between the lower edge of the cavity and opposite tooth, and the dam crowded below the cavity with clamps, or wedges properly shaped. Sometimes a single or double ligature is placed on the tooth and allowed to remain till the gum is forced below the cavity. In doing this great care should be taken.

Question 135. *Why do gold fillings, at times, scale off and become roughened on anterior teeth shortly after fillings have been inserted?*

They should not. Improper annealing, poorly regulated annealing flame, sharp, deep, serated plugger points, that have a tendency to chop the gold; improper packing, and the use of foils not intended for that kind of work, are some of the reasons.

Too much malleting and too little of it cause failure; the former hammering the life out of gold, while the latter fails in condensation.

Improper manipulation will cover the ground. See article in May ITEMS, 1893, page 276.

Question 136. *What would you do should you break a Glidden drill or broach in the canal of an aseptic tooth, and can't remove it?*

The answer depends on the location of drill and tooth. If in a posterior tooth, where it is impossible to remove or rust it out with chemicals, saturate the root canal with oil of cloves and fill with chloropercha mixed with a small percentage of iodoform, and await results. Teeth will remain at times for years in this condition without trouble. If in an anterior tooth, the broach can and should be removed.

Question 137. *An upper central, with large proximal gold filling. Nerve died under filling several years ago, and tooth is very dark. I opened into root canal at palatine surface, and treated and filled the canal. Now, how can I bleach this tooth?*

See July ITEMS, 1892, Q. and A., No. 28.

Question 138. *In making plates from impressions taken in modeling composition I am troubled with plates rocking on the hard palate. Is it my fault?*

It is, generally. Allow the compound to become thoroughly hard before removing it from the mouth. In good impressions the suction is so great that the compound is raised or drawn up at the palatal portion if removed before becoming hard. The thickest portion of wax or compound is usually at that point, and requires more time to cool. If a portion of the arch is muscular, the model should be scraped from that representing this.

EDITORIAL.

THE NEW YEAR.

We have had our tussle with trouble and toil, and a greater fight with our own rebellious nature. Yes; we have had our ups and downs in life—up when we did not deserve it, down when we ought to have been ashamed of it.

But we are here—a little older for our buffetings, but not regretful for their lessons; often abused, misrepresented and unappreciated, but wiser for the struggles; thwarted, disappointed, humbled, but better prepared for the new year.

Nature was asleep beneath the snow. The old year went to sleep. Every thing animate stole away from the chilly darkness to some nesting place. Not a sound was heard. The cold, lonely, dreary hours tolled their slow length along. For the last time in the old year we turned our backs on its pleasures and its pains, its gains and its losses, its successes and its failures—and laid down to rest, and the old clock's ticks lulled us to sleep.

My, how we bounded! Twelve strokes,—and, lo! into a great chasm the ponderous old year rolled, groaning, dead! Up springs the new year, rosy, healthy. Ha, ha; isn't it bright and jovial? How happy the good Lord makes every one of them!

We sometimes think the birth of a new day worth a life to see. We never get tired praising its dawn. God pushes away the darkness so quietly and shoots up His golden rays so beautifully; He comes to our bed so softly and touches our eyes so lovingly; He decks our room so gorgeously, and His angels sing of the morning so sweetly! How can we sleep? By the time we are aroused, a flood of light bursts in on us, as God swings back His curtain!

But the New Year! Isn't it grand? Who can enter on one without shouting? How its invigoration inspires us! The evening before we were wearily and slowly climbing up the hill with a heavy load; as we reach the top, lo! the sun we saw setting behind us springs up in our front, laughing and dancing and singing, *A happy New Year to you!* Readers, **HAPPY NEW YEAR!**

IMMEDIATELY.

This "time enough yet" is the bane of most of us. Waiting for "a more convenient time" generally ends in neglect, indifference, and final non-action, but to arouse ourselves to do immediately what opportunity presents, usually brings success. We have many excuses for delay, but these are dissolved by the crucial power of immediate action. When an important purpose comes to our door, if we immediately seize it, it is astonishing to see how easily we can make room for it, and if we immediately make all plans cluster around it, we surprise ourselves to see how, with the speedy change of the purpose to an accomplished fact, it brings with it all subordinate interests and makes home bright with a new atmosphere. This is the secret of that wonderful transformation which comes to some men. By arousing latent powers it raises them into a new life.

Perhaps, after all, the greatest hindrance to immediate action in important undertakings is laziness. It is so much easier to do nothing than to do hard work, that valuable prizes are allowed to drift by. Laziness brings looseness of purpose, dullness of perception and drowsiness of spirits, till the lazy man replies to every great undertaking, "A little more sleep, a little more slumber, a little more folding of the hands in sleep;" so opportunity takes its flight, and he is left to slumber on.

When great opportunities are past we can often see them—opportunities that we now discover would have undoubtedly changed our whole life to success. But as their brightness faded from our view we could read only, "Too late! too late!" Some writer says, "Every life has its one great opportunity; this lost, and life is lost to all true greatness." This is not true. Great opportunities often come; many we never see, because our eyes are closed; many we never appreciate, because we never give them consideration, and many we let slip, because we are not wise enough to pay their price, but most because we do not make them our own by immediate action.

Even now, while we are resolving that when another great opportunity comes we will take advantage of it, it may be present.

with us—the very opportunity that would make us a success. But we are looking for it to come from some great distance, or from some unexpected source, or to emerge from some mystic darkness or to come as some great thing already perfected that shall produce in us a tremendous transforming power. But when we find it it will probably be some tiny thing that has long been lurking around us, or that has now come so unobtrusively we do not notice it, or so insignificant we despise it—a mere thought, a casual stumble, an “accident,” or an occurrence so common it is not considered—a mere seed that asks to be nourished, instead of being kicked about or swept out. Few important things come already made, and few seeds of promise grow to luscious fruitage without intelligent care and careful culture. The trouble with too many of us is we are too lazy to grow them; we want them to come to us already grown. As the lazy man who was being taken to his grave alive, as too worthless to live, when a good farmer passing, in pity offered him corn that he might be spared, asked, “Is it shelled?” and when told it was on the cob, replied, “Drive on, undertaker.” Immediate action with such people means stealing what others have perfected.

Some are in possession of their great opportunity and do not know it—never know till it has departed, or, knowing it, neglect it, trusting for something better, or squander it as a light thing to be trifled with. The greater their opportunity the more foolishly they toss it to the dogs, till the recipients of a fortune are left hopeless and useless.

We believe we have given you in *ITEMS OF INTEREST* for 1893 the full worth of your money. We believe you believe it, and that you are quite ready to remain with us during 1894. Have you a neighboring dentist you could bring with you? Or do you dislike missionary work? It is our large and increasing circulation that enables us to keep the price low, and yet make so many improvements.

HABIT.

We are largely the creatures of habit. The child walks poorly till it walks from habit. To arrange the vocal organs in speech is a wonderful exploit for the child, but habit makes the effort unconsciously easy. We read and write blunderingly till habit gives us skill. In every new work, the first few days or weeks is the most difficult; we must get the habit of doing it before we can do it easily and well. The hodcarrier's load is, at first, too much for his strength, but after the work becomes a habit, he springs up the ladder with ease. The dentist may have the theory of filling a tooth, but in its application he realizes his ignorance and awkwardness. He must repeat his manipulation many times, and with much painstaking and patience before he has the habit of skill. The first time we looked through a microscope at a section of a tooth we saw nothing. "Look steadily, adjust the lens accurately, and keep the eye on a single point," said the teacher. Still all was confusion. But the students who had spent several evenings looking at it, saw its beautiful outlines clearly; and Prof. Heitzmann, who had long formed the habit of microscopic observations, though his eyes were no better than ours for ordinary sight, could see much that none of us could find a trace of. Skill in everything is the habit of accuracy.

But in morals, habit sometimes blinds us. We cease to see the quality of what we do. An act which is spontaneous, or from instinct, or judgment, or conscience, or example, is performed with caution, hesitancy and perhaps doubt; but if we assent to its quality by apt repetition, it finally becomes so a part of our character we become bound to its moral quality. The boy who first sees a man, or a monkey, make a chimney of his nose and a coal pit of his mouth, laughs; as he sees others on fire, he is puzzled; but when his own father and elder brothers hold twists of weeds in their mouths, and actually burn them up by drawing the fire and smoke into their mouths, he begins to think that it is the way gentlemen are made, and he does it himself. Till it becomes a habit it is disgusting, but when it is a habit he finds himself a slave to the practice. Now, though he knows it is foolish, filthy, offensive,

and though he would be disgusted to see his mother smoke, or his sisters, or his lady friend; though he knows it makes him fretful and nervous and petulant, he finds himself bound. In shame he hides behind a fig leaf of excuses and blunts all his finer sensibilities, in the thought that he is still presentable to good society.

But as strong as evil habits are, we may make ourselves quite as strong in right doing by good habits. These are made in the same way, and are just as easily formed. Every act, whether good or bad, has a tiny thread connecting the act with the actor. Repetition twists these slender strands into a cord and binds us to the character of the acts. Finally, these acts and the actor become so familiar, so one in nature, that they walk lovingly hand in hand. Even if these are bad, the actor is father to his acts, and he begets for them an affection that is not easily broken. It is like being inveigled by the embraces of a bad woman, nothing but the breaking up of the whole character can part them. So when habits for good things are thoroughly formed, it is easy to be good and difficult to be bad. What temptation have intoxicants to one who has never formed the artificial appetite for them? The vicious woman is disgusting to the one who is not a slave to lust. The man thoroughly bound up in the habit of honesty, sobriety and truthfulness must make a great effort to be a thief, a drunkard or a hypocrite. Honesty, sobriety and truthfulness become a second nature, as evil becomes a second nature to the man who gives himself up to doing wrong. A man strong in habits of well doing does not feel the light-fingered disposition to steal that the thief feels, nor the gnawing appetite for strong drink the drunkard feels, nor the itching propensity to hide behind a mask the hypocrite feels. The good forces of his nature—the very occupation and propensity of his thoughts and passions—are bound up by the cords of good habits as strongly as are the evil forces of the bad man by the cords of bad habits. Self-interests triumph over the passions, reason controls the judgment, spiritual tastes sweeten the appetites, and the whole man is at peace. He is in a normal state,—well and happy, body and soul.

THE SECRET OF SUCCESS.

We see all about us successful lives, and wonder why we also may not succeed. We ask, What can be the reason of their rising to such eminence, while we remain insignificant? And we are apt to console ourselves that, after all, mere luck, hap, fortune, and not any fault of our own, makes the difference.

We see only results; the process of success is hidden. We would not ascribe success to chance, or wonder what its source, if we could peep behind the curtain and see the secret springs of inspiration and power,—the careful reflecting and feverish longing, the intense willing and strict living, the tireless industry and close study, the self-sacrifice and consuming zeal,—all that prepares and molds character; that makes skillful minds and muscles; that controls passions and spirits, and that expands and matures the faculties for some lofty purpose. This is what gives the rough, uncultivated man agility and suavity; the awkward, blundering man cuteness and scientific precision; the groveling, sensual man refinement and esthetic taste. And then, if we could look within and see our own want of energy and thoughtfulness and good purpose, we should no longer be surprised that we are a nonentity. Bad luck, want of a chance, a frowning Providence, are made at our own *man-u*-factory.

So we see, though the secret of success is locked to the ordinary gaze, yet, with this key to the inner life of the successful, we perceive the mystery.

And why should all that has led to success be apparent? When the building is finished the scaffolding is removed. As the finely written essay, the polished oration, the exquisite work of art, like the subtle skill of the leaders of our profession, conceals the process which has produced them, so we see in the successful life the finished product, not the process of the making. A labored style in writing, a self-consciousness in oratory, a mechanical stiffness in art is offensive. In any department we admire a success that stands out as though it came spontaneously.

Therefore, though successful men seem to spring from some magic eminence, let us learn that, if we would attain their posi-

tion, we must reach it through thorough drill, patient toil, and habits of precision, study and honorable dealing. We must make everything bend and blend to a definite, all-absorbing useful end. In such a pursuit of such a purpose, we shall develop such a moral, intellectual and esthetic character as to demand a commanding position, and maintain it.

IMPLANTATION.

Is there vital union between an implanted tooth and its surroundings? When will this question be settled? Its discussion through the last ten years or more has been a fine thing in improving our physiological knowledge. It has brought even the masses of the profession to study this subject of tissues and their functions; and in studying these there has been much learned of the whole processes of life and growth.

No doubt bone growth is from the osteoblasts; but the lymph thrown out from these nuclei of growths are an integral of the bone, and not merely of the periosteum. So that if a bone is broken, the parts, when brought together, will unite, not merely by periosteal plasma, but the osteoblasts of every part of the broken surface will throw out bone substance, and the union of every part results.

Even if there is not contiguity of the parts, there will be a reaching out of bone substance till the intervening space is filled, not only by its cement, but with full bone substance.

But more than this—and this brings us to the physiological process of implantation—if there is a breaking up of bone tissue, and a foreign body is brought in contact with it, that is besmeared, surrounded and attached to the main body. The foreign body is not made vital by such a process, though it is held tightly, and, perhaps, permanently glued to its environment more firmly than by an attachment of periosteal membrane, as with a live tooth, so that a dead tooth thus implanted in a prepared socket of the alveolus may be more firmly imbedded than are live teeth.

But, though this ankylosis may produce more immobility than the natural socketed connection of a live tooth, it is not usually

as permanent. A bullet may be thus buried in an organ or membrane, and be tolerated for years, but nature may eventually assert itself, and throw it off. In doing so, if, instead of a bullet, it is a dead tooth, the same dissolving agency which disorganizes its environment will eat into the implanted tooth till it is thrown out ragged and jagged, and, perhaps, half destroyed.

Therefore, though there are several successful operations of this kind, it is too early to determine general final results.

Friends sending us contributions are generally quite careful in composition, but some dash it off as carelessly as a private letter to an intimate acquaintance. This would look badly if published as written. It is not because you could not do better but because you do not take the pains to. But if it is because you can do no better, why not do as we are obliged to do—rewrite once or twice, or thrice, till you are sure you can make your production no better. You will find it an excellent discipline. One such article would be better than a dozen thrown slovenly together. Why, you would laugh at our editorials, if we published them as first dashed off. We have always been poor at English composition, but we manage to make ourselves understood by doing our best. Friends, when you write for the *ITEMS*, *do your best*. Remember, you have a large audience to hear you speak, and the opportunity is worthy of your best effort, for the *ITEMS* now reaches more readers than any dental magazine in the world.

Other articles are not only written in a loose style but in a very careless chirography. An incident occurred lately which reminds us of an incident in our younger days in Watertown, N. Y. Mr. Fairbanks, a merchant, sent an order by a teamster for some goods to Sacketts Harbor, ten miles distant. The note could not be deciphered and the teamster returned empty. Presenting the note to Mr. Fairbanks he said, after puzzling over it, "What in the world is this scribbling? It is nothing but crow's tracks. Take it back to the shipper and tell him to get some child to write for him."

"Mr. Fairbanks," said the teamster, "that is your note to him. He could not read it, so I had to come back empty."

"Hum, ah; oh, yes; I see. Any child ought to be able to read that. I remember now what it is. George," calling his son, "what is it we sent for this morning?" He could not read his own writing "when it was cold."

A dentist of considerable eminence, and who talks in our societies with much profit to his hearers, writes for the *ITEMS* in such a careless, scrawling, indistinct hand, that we have to let an expert set it in type before we can tell what he says; for if it is not type-written the printer is obliged to make so many guesses the writer sometimes complains we do not catch his meaning. Now, this is not because he cannot do better, but because he will not take the time. Some articles do not fare so well as his, for if we do not know they are of importance, we cannot puzzle the printer with what we cannot read ourselves.

The best each can do in everything is none too good, and he who does his best every time will be continually improving.

Move on! So the crowd say as they jostle and crowd us and step on our toes. It is better to be pushed forward than backward, and better to be pushed rudely than not at all. If you don't like to be crowded, move on. If you don't like the dust and confusion, and the hot haste for place and power, get to the front. There is always room at the front; and the farther you get beyond the rabble, the more delightful and serene your surroundings. While you are in the crowd, you can see nothing but the dusty road and think of nothing but your safety; but at the front you enter fruitful fields of luxury and plenty. After you have gleaned, let the crowd come. Too many of us are contented to be what we are; and what we are is little better than what we have been. Where we were ten years ago we are to-day; and we will be ten years to come, unless something extraordinary moves us. Let us get up and shake ourselves, and move on. Like the neglected girl at the party when asked to dance, let us respond, "Yes, sir-ee; for here I have sot and sot, till I have almost tuck root."

NOTES.

EVERY one reading Prof. Flagg's little talk on Dental Boards, found on another page, will be impressed with the necessity of more thorough and practical manual training in our dental colleges; and this should be under the personal supervision of competent, conscientious, painstaking teachers.

* * *

Dr. Stockton, New Jersey, says: We advocate one thing for a time and then another. Copper amalgam was used at one time to save all frail teeth; it was as great a fad at one time as the dancing girls on "Midway" were a short time since. We have to adapt our filling material to our cases, and frequently we have to take into consideration the ability of our patients to pay.

* * *

SCIENCE IS PERFORMING MIRACLES.—Recently Miss Nellie Bulard, of Waycross, Ga., was dumb. The cause of her being speechless was a cleft palate. Now she talks fluently. The change has been wrought by means of an artificial palate obturator, made of vulcanite and rubber by a skilful dentist. It was adjusted in her mouth, and for the first time in her life she uttered a word, and after a few days of trying simple words, she has become able to converse with her friends.

* * *

MECHANISM OF JAWS AND DEVELOPMENT OF THE BACKBONE.—Dr. Harrison Allen calls attention to a series of crania, illustrating the condition of the jaws after the loss of teeth. The popular belief that the alveolar processes in all cases are absorbed, leaving no appliance for mastication, requires modification. Only four out of fourteen toothless skulls were in this condition, and these four were the skulls of civilized races. The other ten belonged to savages, and there was present either a series of nodosities where the teeth had been, or the jaw was covered with a bony ridge.

* * *

Dr. A. V. Elliott says: The ideal dentist should be a man of honor, and dignity, and worthy of every confidence—a gentleman in the highest sense of the word. He should always have in view the honor of his profession and its advancement, and his ambition should be to do all in his power by his own conduct to raise it to a higher standard morally, intellectually, and skilfully, and thus as far as he is able to make it the peer of the most learned professions. He should remember that ours is not only a learned profession, but a useful one. It is our mission to save and restore,

and he should not forget that our work is mostly on living tissue and sometimes extremely sensitive living tissue. He should be a man of courage, firmness and gentleness, and, of course, conscientious. All kinds of claptrap cheap-jack methods or vulgar boasting which tend to lower and degrade us as a profession, even though the offender be ever so skilful, should have no place. Boasting is a cheap, vulgar, and very unreliable way to advertise ourselves.

* * *

Mrs. J. M. Walker has become so familiar to our readers by her valuable assistance to the *IREMS* that they will hear with much regret her severe loss by the recent floods near the mouth of the Mississippi and the Gulf coast. The dental office of Dr. W. E. Walker, son of Mrs. J. M. Walker ("Mrs. M. W. J."), at Bay St. Louis, Miss., was completely swept away. His library, account books, instruments, furniture, and everything, except the remains of the Wilkerson chair, found under four feet of sand on the beach, and a few instruments recovered, are all gone. The office building was built over the beach, the front part on a high bluff protected by a breakwater, the rear on piling ten or twelve feet high. The bluff caved in and the building collapsed, then broke up, part going out to sea, part buried in the sand.

* * *

We receive from P. Blakiston, Son & Co., Philadelphia, the sixth edition of *RICHARDSON'S MECHANICAL DENTISTRY*. Price, \$4.50.

This book is so well known as a standard work on this subject, we need hardly refer to its general character. Its various editions are costly luxuries, but they are made necessary by the constant advances of the profession in this direction. When we compare this edition with the first we so thoroughly studied in our younger days, it vividly reveals the great strides dentistry has made during thirty or forty years.

This sixth edition is certainly up to the demands of the most advanced students, and old practitioners will find it profitable reading. No dental library is complete without it.

* * *

"LETTERS FROM A MOTHER TO A MOTHER ON THE FORMATION, GROWTH AND CARE OF CHILDREN'S TEETH" is the title of a little book obtaining a wide circulation. The sale of the present edition is much greater than previous issues, though these were unusually large for any popular book on dental subjects. Their demand from England, South America and other countries is unprecedented. Many dentists order them for gifts to their patients. Published by The Wilmington Dental Mfg. Company. Twenty-five cents per copy.

FOR OUR PATIENTS.

TOOTHACHE.

To have it out or not? That is the question :
Whether 'tis better for the jaws to suffer
The pangs and torments of an aching tooth,
Or to take steel against a host of troubles,
And by extracting end them? To pull,—to tug,—
No more; and by a tug to say we end
The toothache and a thousand natural ills
The jaw is heir to. 'Tis a consummation
Devoutly to be wished. To pull,—to tug,—
To tug, perchance to break. Ay, there's the rub—
For in that wrench what agonies may come!
When we have half dislodged the stubborn foe,
Must give us pause. There's the respect
That makes an aching tooth of so long life;
For who would bear the whips and stings of pain,
The old wife's nostrums, dentist's contumely,
The pangs of hope deferred, kind sleeps delay,
The insolence of pity, and the spurns
That patient sickness of the healthy takes
When he himself might his quietus make
For one poor shilling? Who would fardels here
To groan and sink beneath a load of pain?
But that the dread of something lodged within
The linen—twisted forceps, from whose pangs
No jaw at ease returns, puzzles the will
And makes it rather bear the ills it has
Than fly to others that it knows not of.
Thus dentists do make cowards of us all,
And thus the native hue of resolution
Is sicklied o'er with the pale cast of fear;
And many a one, whose courage seeks the door
With this regard, his footsteps turn away,
Scared at the name of "dentist."

We are called professional men in contradistinction from common laborers because our lives are spent in ameliorating the physical condition of our fellows. We are called a learned profession because to do this it requires much intelligence and study. To deserve these appellations should stimulate us to much thought, research and skill.

SEEING A GHOST.

When a young man, Sir Richard Owen's enthusiasm for anatomy led him into an awkward situation. While holding the post of surgeon to the prison at Lancaster, a negro died in the gaol, and a post-mortem, as well as an inquest, was necessary. After the inquest the young surgeon saw the body put in the coffin and the lid screwed down, to be ready for the funeral next day. Owen had at the time been already attracted to the study of comparative anatomy, and negroes' heads were not plentiful; so he made up his mind that this one should not be lost to the cause of science. In the evening he returned to the prison with a black bag containing a brick; from his official position he had no difficulty in getting admission to the mortuary, where the coffin lid was unscrewed, and screwed down again. During this process the brick and the negro's head changed places. The ground outside the principal entrance to the gaol had a considerable descent, and the time being winter, with snow and frost, Owen had scarcely passed out when he slipped and fell full length. The bag went from his hand, and the head tumbled out and rolled down the paved way. He jumped up, caught the bag and following the head, clutched it just as it finished its career in a small shop where tobacco was sold. Pushing it into the bag again, he vanished out of the shop with all the speed he was capable of. Next morning when Owen was going to his usual duties at the prison, he was called in by the woman at the shop where the accident had occurred on the previous evening. She wished him to see her husband, who was very ill. He had had, she said, a fright the night before that caused him to look wild and dazed-like. The man, it turned out, was a retired sea captain, who had been in many adventures among the West India Islands, when many deeds were done that did not at that time require to be accounted for. Among these had been the killing of a negro, in which he had a hand, and the transaction had left a touch of trouble on his conscience. After giving these details the old captain told of the horrible event that took place the night before. He was sitting in the shop, all was quiet, and it so chanced that he had been thinking of the negro, when suddenly he saw his very head roll into the shop in front of the counter, and it was followed by the devil, all in black, with a black bag in his hand. The devil snatched up the head, and both disappeared through the earth like a flash of lightning. The description was perhaps not quite complimentary to the young anatomist, but it was satisfactory so far that it showed that his identity had not been recognized.

PATIENTS AND PATIENCE.

A. V. Elliott, D.D.S., Florence, Italy.

The message, my brethren, which it is my purpose to deliver to you is entitled Patients and Patience—patients' patience—a happy if seemingly a somewhat paradoxical combination. As commonly understood a patient is the client of a medical man or a dentist. The word itself comes from the Latin word *patiens*—the active participle of the word *patior*—to suffer—to endure suffering. And patience, one of the virtues most required by the dentist and his patient, is of the same root, meaning waiting or long suffering. We have thus from the same origin, but spelled differently, two very important requisites for our success. We must have the one before we can have any use for the other.

According to the old theology, the world is composed of two kinds of people, saints and sinners. But in the experience of the impressionable dentist, the formula is changed to good and bad patients instead, which amounts virtually to the same thing, a good patient being in his estimation a fit subject for the Kingdom of Heaven, and the other fellow—otherwise.

We all know how great the difference is by experience, sometimes by painful and wearisome experience.

There is nothing like the dental chair as a reagent, to test the qualities of an individual, and how often are we surprised at the result. To a student of human nature and of national traits such experiences are interesting, if sometimes annoying.

One of the first things I noticed when I entered the profession was how few had the ideal superiority of the moral over their physical natures. After all, as the Irish poet might have justly said, there is much human nature in human nature, and it only needs some exciting cause (outside of the usual routine of life) to develop it, and one of those exciting causes I have found to be the impelling force that drives a man to the dentist, where, according to the nature of the case, the nationality of the person, his previous experience, his education, and his moral and physical balance, he will behave himself in the chair.

To arrange and classify patients, except in a general way, is impossible. The varieties are as infinite as are the characteristics of the human family. It is, therefore, not the ordinary every-day kind of patient that I wish to present to your notice, but those more exceptional and which most affect us in our efforts to minister to their comfort. Dentists whose opportunities of observation have been great will appreciate and confirm the truth of what

I am about to give in regard to the unnecessary trials and annoyances we as dentists are too often subjected to.

One of the trials of our patience is with late patients. There are those who are always punctual and those who are always late. With a dentist in full practice time is money, and tardiness makes confusion and embarrassment. It often happens that the next patient after the late comer is a superpunctual person—one who values your time and his own.

The excuse given—and your late patient always has good excuses—does not give you the time lost without encroaching on the time of the next, and does not enable you to do an hour's work in half that time. How often is our patience tried by such badly disciplined patients who prove by their conduct how badly they have been brought up. Slovenly domestic discipline is a moral crime against society. The spoiled child usually develops into the selfish or inconsiderate man or woman, and society suffers in consequence.

In dealing with such patients—and I am sorry to say they are usually of the fair sex—the dentist must be guided by circumstances and compensate his patience by making his charge commensurate with the loss of time. But in regard to this class of delinquents who make appointments and neither keep them or notify us of their inability, the only way is to charge them for the lost time, which has the double advantage of remunerating ourselves and teaching them a lesson on self-interest.

Another class of patients who try our patience is the self-willed and perverse. Such people do not like to have to submit to the necessary pain and inconvenience, and project a spirit of antagonism as though the work we are doing is for our own pleasure. There are varieties of this class, including the nervous, and the fussy self-willed, who make a great ado of their sufferings and hinder us to the utmost. We are anxious to do our work well, but between what the nature of the case will admit and what the patient will endure there is little margin left. One reason why the conscientious dentist worries at such times is because he knows if the work fails, this kind of a patient will not have the justice and charity to assume any responsibility for having contributed to it, but will have much to say about how much she suffered. Patience is necessary here, and much of it; sometimes dentists, like medical men, get blame where they least deserve it, and praise, too, sometimes where they least deserve it.

There are those who, to produce an impression and call attention to themselves, have an exaggerated way of emphasizing. Not that they suffer any more than others, it is their way. They are selfish and self-asserting.

Then there is the patient who has a little knowledge and a great deal of conceit—who, in fact, knows everything—who totally ignores your three terms at college and maybe twelve years of practice, and the fact that even a dentist must depend on the advice of a brother practitioner when his own mouth needs attention. Such a patient is positive that such and such is the case. He requires that you shall do the work as suggested by him. He takes up your valuable time arguing, and then when you tell him you will do as he directs, let him boss the job, provided he takes the responsibility—he is unwilling to do that, but resorts again to arguing through which, if by nothing else, you learn how ignorant he really is. These people are great nuisances. The only thing to do with them is to put on the cloture, the rubber-dam, as soon as possible, and give them leave to print, as they do in Congress, any further remarks they may have to make, and do the work as you think best.

Then there is the offensive aristocrat—not offensive necessarily because he is an aristocrat, but an objectionable variety of that social order. The real aristocrat is in my experience the most unassuming, unpretending, and the most friendly, sometimes even chummy of clients, but there are exceptions. Those who behave in a condescending way, whose manner would imply they hardly knew the distinction between a professional man and a servant who, at least, though compelled by the force of circumstances, to consult the dentist and allow him to put his fingers in their unclean mouths, will resent it afterward by the cold cut, should chance bring them face to face outside the office. Such vulgarity, I am happy to say, is rare, and when it does occur it hurts the possessor more than it does the recipient, as it proves the rule how utterly unworthy such people are to be considered superior.

Then there is the paradox, the impatient patient; the one perhaps, who, having a plate for the first time, expects it to be as comfortable within the first few days as her grandmother's is after thirty years' experience. She comes day after day and insists on your doing something. In vain you argue it is not the fault of the plate, but of her not being accustomed to it, and that to undertake to improve it would risk spoiling it altogether. My brother's recipe for such people was to tire them out. Sooner or later she and her plate will have more affinity for each other, and she will cease her visits.

Soon after commencing practice I made a plate for an old lady, when I was inexperienced and had the idea—the exalted idea—that the patient must be made satisfied whatever the sacrifice of the dentist. I altered her plate five times and worked nights.

It was a perfect fit from the first, but the more I tried to please her the more she was determined not to be, till her brother came and told me she was crazy, and begged me to charge it all in the bill. Often enough, however, we have people who are not officially crazy, but are nearly as bad to get along with as this old lady was.

Another class of patients who try our patience are those having idiosyncrasies—some peculiarity about them which interferes with the proper performance of our operation. Such, for example, as the inability to have the rubber-dam applied, or to open the mouth properly, or who gag or retch when paper or a napkin is put in the mouth, or an instrument touches the tongue; who are unable to swallow or to have the head in any other position than bolt upright, not including the common kind of idiosyncrats who positively object to that most humane of dental instruments, the engine. Nervousness has much to do with this phase of human nature—again patience and tact are here indicated and will do much for relief.

Somewhat related to this group is the timid and apprehensive class. Those who confess themselves cowards and who approach the operating room with fear and trembling, whose dire necessity drives them to the dentist. If facetious they will call our apartment of relief—which our English friends call the surgery—the chamber of horrors. Fortunately for these people, when they go to the educated dentist, they seldom get what they expect. The idea such people usually have when they go to a dental establishment is one of blood, forceps, spittoons, and agony. They are so grateful afterwards to the gentle and soothing operator for the relief given and that they still live. Ignorance and nervousness in these cases combine to give much unnecessary suffering.

Children usually come under this head, but there are exceptions. Some of the bravest and most sensible patients I have ever had have been young children, who cheerfully and willingly assisted me in doing the necessary operations. Real little heroes and heroines submitting, without any fuss, to have teeth extracted when such was in order. The good conduct of such little folk under such trying circumstances, should put to shame the self-willed babies of older years.

But in dealing with the little ones ordinarily, much patience and tact are required. We must gain their confidence and avoid as far as possible anything that might tend to discourage their going again to the dentist when required. I am opposed to the expediency of deception. A child so deceived, never forgets the shock, and retains, perhaps for life, a prejudice against our profession—to their injury and our loss.

We must also show much patience with the patients who make a fuss over our charges. In a cosmopolitan practice, such as most of us have, we have to deal with a great variety of people from different parts of the world. To avoid such unpleasant discussions, should the person by her appearance suggest the possibility of a discussion over the amount of the indebtedness when presented, my plan is to inform in advance. I dislike such discussions very much, and am willing to do all I can to avoid them.

Then we have the deadhead, or, if you please, complimentary patient. Dentists as a rule, are both benevolent and charitable. Of course the dentist can do what he pleases with his own time and material—give it all away if he chooses, or he can charge his wife's mother as much as any one else. The laborer is worthy of his hire, but often his disinterested kindness in giving time and skill without compensation is not adequately appreciated. The time, if he had it to spare, he could easily find more congenial use for. One thing peculiar I have noticed about the D. H., she is often the worst offender in regard to punctuality. One hates to qualify a benevolent act by reminding such people of their obligation.

There are those who come to the dentist with unclean mouths, requiring him to clear away the offensive muck about and between the teeth before he can get at the suspected places. And I might refer to the inconsiderate person who stands at your operating door and insists on seeing you "just for a moment." And there is the tactless person, who, having a prejudice against a brother dentist, is indelicate enough to abuse him in your presence. Such people should be discouraged, as should the person who comes the influence dodge with a view to her own advantage and who does not seem to realize what an old dodge it is.

Dental Review.

Dr. W. F. Tignor finds the 3 per cent medicinal pyrozone good as a mouth wash. It is very efficient in controlling the inflammatory condition of the gums in pyorrhea alveolaris. He used the 5 per cent in the pockets and finds it very effective. It is also effective as a bleaching agent.